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YOUR FARM REPORTER AT WASHINGTON.

Monday, September 1, 1930.

#### NOT FOR PUBLICATION.

Speaking Time: 10 minutes.

All Regions.

#### RECOMMENDATIONS ON PROBLEMS OF LIVESTOCK PRODUCTION

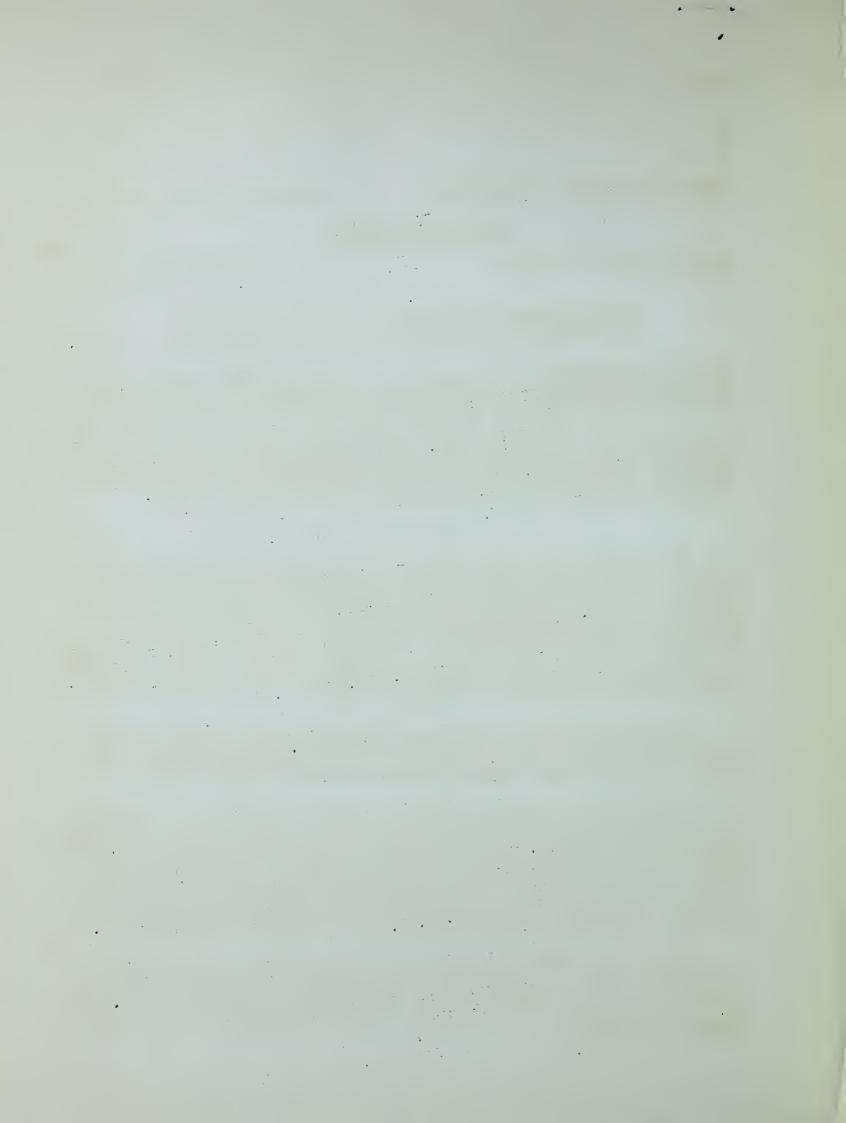
OPENING ANNOUNCEMENT: Every Monday Your Washington Farm Reporter has a personal interview with some livestock specialist in the United States Bureau of Animal Industry. The radio talk which is to be broadcast from at this time is the result of Your Farm Reporter's interview with Mr. D. S. Burch, assistant to the chief of Uncle Sam's Bureau of Animal Industry. The subject of this talk is, RECOMMENDATIONS ON PROBLEMS OF LIVESTOCK PRODUCTION, and Your Farm Reporter now has the "mike."

Well folks, I have some brand-new information for you this time—about a new publication being issued by the United States Department of Agriculture. This 14-page bulletin is Miscellaneous Publication No. 81-MP, and is called RECOMMENDATIONS OF THE BUREAU OF ANIMAL INDUSTRY ON PROBLEMS OF LIVESTOCK FRODUCTION. Dr. John R. Mohler, chief of the Bureau of Animal Industry is the author of this new publication which is a clear, crisp summary of previous statements he has made and in addition, contains much new information in condensed form.

Crossing of breeds, grading up, inbreeding, better feeding, runty livestock, poultry tips, and the future of the livestock industry are just a few of the many subjects discussed in this new publication.

I heard about this new publication before it came out, and promptly went in search of Dr. Mohler to find out what his new bulletin would say on some of the popular livestock subjects I have just mentioned. Dr. Mohler was not in Washington the morning I called at his office, but I found his trusty assistant, Mr. D. S. Burch, examining a printers! proof of the new publication, so I persuaded him to let me look the proof over, and then I turned my question gun on him for additional information.

When I was a little boy and lived in Middle West, I used to hear farmers talk about crossing Holstein and Hereford cattle in order to get a cow better for both milk and beef. Naturally I was anxious to hear what Dr. Mohler had to say on that subject, so, my first query was about the crossing of breeds.



"Well," said Mr. Burch, "on page two of this new publication Dr. Mohler says; 'The crossing of established breeds of livestock of different types, such as beef and dairy cattle, seldom gives the results expected and is usually an UNDESTRABLE PRACTICE. The crossing of longwool on fine-wool sheep, especially in the range States, is an exception to this rule. Similar types of livestock, particularly swine, when crossbred, often make excellent animals for general utility and market purposes, but their OFFSPRING have such mixed heredity that they are practically USE-LESS in systematic herd improvement. Consistent work with one well-chosen breed is more likely to give satisfaction and be profitable than attempts at crossbreeding."

During the last few years we have heard a great deal about improving livestock, especially cattle, and more especially dairy cattle, through the use of a good sire. I was anxious to hear from Dr. Mohler on that important subject, and so that was my next question.

"Grading up herds and flocks by the use of purebred sires of INDIVIDUAL MERIT is an economical and practical means of livestock improvement. The benefits accumulate rapidly in such respects as GREATER UNI-FORMITY, IMPROVED QUALITY, AND INCREASED UTILITY VALUE."

Inbreeding is a much discussed subject among livestock breeders at the present time. In discussing this subject with me, Mr. O. N. Eaton, genetic investigator for the department once told me that inbreeding was a powerful factor, and a DANGEROUS tool in the hands of the unskilled." I thought it would be interesting to have Dr. Mohler's views on this so I directed my spotlight to that subject.

"You are digging down into some pretty technical livestock problems now," said Mr. Burch. "Do you think you can make them clear and interesting over the radio?"

"Yes sir," I replied. "People, and especially livestock producers, are interested in these matters and they want more information, especially if it's sound, practical, and points toward the receiving window at their local bank."

"All right," conceded Mr. Burch, "we are anxious to get all this information out to the public and here's what Dr. Mohler says on that subject. Inbreeding should be practiced ONLY by the most skillful breeders and by them ONLY when they have definite knowledge of the ancestry of their animals and are prepared for possible DISAPPOINTMENT in the results obtained. Inbreeding for market production is an unwise procedure. Intensive inbreeding brings to light hidden characteristics and quickly leads to a fixation of type. There is ever present, however, the possibility that POOR rather than GOOD characteristics will be brought to light and FIXED ---- thus resulting in rapid degeneration of the stock."

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I don't mind telling you listeners that in the section where I grew up we had plenty of "razor-back" hogs, striped mules, "hoptagoola" cattle and other forms of runty livestock. Of course such livestock is ALL GONT from that section now, but I still have a hankering to know just why one animal is runty and another robust and healthy. So, I had that runty livestock question marked down so I would think to ask about it.

According to Dr. Mohler---- "Runtiness in farm livestock is largely PREVENTABLE by BETTER BREEDING-----PROPER FEEDING----- CONTROL OF DISCLASES and PARASITES, and PROPER HOUSING and ATTENTION: "Weaning time," says Dr. Mohler, "is a CRITICAL period and farm animals should receive ESPECIALLY GOOD FEED and care THEN to prevent interruption to growth."

Poultry is attracting a great deal of attention at the present, so I shot a chicken question at Mr. Burch, and now here's the reply to that question.

"Success in keeping poultry for egg production depends largely on a good yield of eggs late in the fall and winter. To obtain this result it is necessary to hatch chickens early in the spring so that they will begin to lay when the hens are molting. The PREFERRED hatching period is during MARCH AND APRIL, but the period chosen naturally depends on the breed, climate, and facilities for giving the chicks proper care."

Here's an important item from the new bullctin on feeding livestock. It says, "An important means of reducing costs and increasing net returns from livestock is more skillful feeding." This question involves a practical knowledge of feeding requirements of different classes of animals, composition of feeds, and the compounding of rations. Letter feeding of livestock is a study that PAYS WELL for the time devoted to it."

I have a number of other things that I jotted down from Dr. Mohler's new bulletin, but I'll only have time for one more so I'll skip to the last----the future of the livestock industry. Here it is.

"Statistics indicate that livestock will not increase in numbers as fast as the human population. As land becomes more valuable and human population increases, dairy or dual-purpose cattle probably will replace beef cattle in some degree, especially near cities. Better livestock of all kinds must replace inefficient, inferior kinds if stock owners are to prosper. Problems of the industry probably will increase in number because of a higher complexity of national life brought about by increased population. The successful solution of present problems will aid greatly in meeting problems of the future."

Now folks, I have given you this program because it contains something to think about, and because this is LABOR DAY and perhaps you have a little time today to meditate and think over problems of the future.

If you want additional information on livestock problems, write for Miscellaneous Publication No.81-MP, called RICONDENDATIONS OF THE BUREAU OF ANIMAL INDUSTRY ON PROBLEMS OF LIVESTOCK\_PRODUCTION.

CLOSING ANNOUNCEMENT: You have been listening to one of the regular Farm Reporter programs broadcast from \_\_in cooperation with the Federal Department of Agriculture. Write this station for a copy of the new Miscellancous Publication No. 81-MP.

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YOUR FARM REPORTER AT WASHINGTON:

Crops and Soils Interview No. 51:

RELEASE Tuesday, September 2, 1930

The Wheat Storage Problem

ANNOUNCEMENT: Why is there such a jam of wheat at terminal markets? And what can be done about it? Your farm reporter at Washington has sought an answer to that big question from the grain specialist of the Federal Farm Board. ---- Well, Mr. Reporter, what can we do about it? ----

Mr. E. J. Bell, Jr., of the cooperative marketing division of the Federal Farm Board, has explained why the jam, how that jam boosts costs of marketing wheat, and what ways we can prevent the congestion of wheat at terminal markets.

There is more wheat in storage on farms in this country than ever before. There is more wheat in storage at country elevators. There is more in storage at terminal markets. Our national storage bins are jammed full and running over.

Just think of all our storage facilities as one bin. In a few weeks after harvest, we dump the crop into the bin. But it isn't taken out of the bin in a few weeks. It wouldn't be good business to run the mills for just a few weeks and then let them stay idle the rest of the year. People cat bread every day. While we fill up the bin, once a year, so to speak, we are using out of it all the year around.

Usually by the time for the next crop, for another filling of the bin, we still have a considerable store of wheat. There is some left in the bin. That's left is what we call the carry-over. On July 1, 1926, this carry-over was only 90 million bushels but it reached 114 million bushels July 1, 1928, and last year we had 228 million bushels or twice that of the previous year. This year, there was even less space, for there was around 275 million bushels carry-over. Our bin was more nearly full to begin with than ever before.

That is one of the things, Mr. Bell points out, which has caused our grain bin to be taxed beyond capacity. Another thing is that the wheat was taken out of the bin more slowly last season. Last year wheat didn't move through the terminal markets into milling and export channels as fast as usual.

And while there was more than usual already in the bin, and we were taking it out of the bin more slowly, we poured it into the bin faster than

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usual. The heavy movement of spring wheat used to be stretched out over the last half of August and the months of September and October. The combine and the motor truck; however, have speeded up the movement. During the past three years, more and more has been moved in August.

Pouring it in faster, taking it out slower, and with more in the bin to start with, there is no wonder that some of us are looking around frantically for a place to put our wheat. And when that happens it often means a boost in the cost of storage. Men with much wheat begin to compete with one another. Here, there, and yonder the owners of elevators with empty bins are offered extra inducements by owners of wheat to get that space before the other fellow. That competition tends to increase storage charges. Then, too, when handling facilities are overloaded, it costs more to operate a grain elevator than when the crop is moved in an orderly manner. It also costs more to move the crop. With the railroad yards at the terminals full of cars, switching and demurrage charges pile up against each shipment. As Mr. Bell says, the box car is the most expensive facility in which grain is stored, yet last year many box cars loaded with wheat stood on the sidings for weeks, because the cars could not be emptied promptly at the crowded terminals.

What is the answer? Wat can farmers and farmers! cooperative associations do to prevent such jams at terminal markets?

The first thing which naturally suggests itself is to keep more grain down on the farm. Store it at home, some people say. Mr. Bell, however, recommends farm storage only for a temporary period in cases of emergency. Very often, he says, farmers will hold their wheat while the price is rising and then sell at the bottom for fear the price will drop.

Farm storage of wheat is especially desirable for a temporary period in the fall; especially for the man with high quality wheat. If you can hold it on the farm, until the rush movement is over, it can be kept separate when it is delivered to your co-op elevator at a later date and you can have a better chance of getting paid according to quality.

On account of hauling conditions in late fall and winter and spring, Mr. Bell recommends farm storage as a temporary proposition.

As a permanent proposition, he suggests that farmers around many shipping points could afford to invest as much as it would cost to build bins on the farm in the stock of a co-op elevator association. Then the co-op could construct storage facilities along the railroad track for the use of its members. In that way, growers could avoid double handling on the farm and the grain would be safer from theft and spoilage than in farm bins and the wheat would be where it could be moved to market promptly regardless of the weather.

By storing part of the grain at country points and so holding back part of the crop temporarily, Mr. Bell points out, we would relieve the excess dumped into terminal markets by the use of quicker harvesting. Some localities already have even more bins than there is demand for. Other

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localities, however, could well increase their country elevator facilities.

A third possibility, Mr. Bell mentions, is to increase the capacity of terminal elevators. There has been a big increase in terminal capacity in the past few years. And the largest increase has been in the last year. But the increase in terminal capacity hasn't been made anyways near as fast as the carry-over has increased.

Mr. Bell thinks that cooperative associations might be able to acquire some of the terminal facilities by purchase or lease rather than run the risk of building terminal elevators which would not be needed over a long Period of years.

In other words, he cautions against going into a general program of expansion, but suggests that co-ops might find it to their advantage to build a few elevators to take care of the wheat storage situation which now hangs over the market.

Some even say that congestion at the terminal markets, not only raises costs, but actually has a depressing effect upon the general level of wheat prices. Certainly, it doesn't boost the price.

AMEQUINCEMENT: You have just listened to an analysis of the wheat storage situation with the suggestions of the grain specialist of the Federal Farm Board, as brought to us by your farm reporter at Washington. This is one of our regular series presented by Station in cooperation with the United States Department of Agriculture.

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Speaking Time! 10 Minutes.

Poultry Interview No. 51: NOTES FROM THE WORLD'S POULTRY CONGRESS

ANNOUNCEMENT: Here is Your Farm Reporter at Washington; and today Your Reporter presents that report he's been promising you from the World's Poultry Congress, which was held this summer in London, England. Your Reporter has been talking with Mr. A.R. Lee, of the Department of Agriculture, who was there. And now he brings you the impressions Mr. Lee brought back with him. All right, Mr. Reporter.

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You've already heard about the fourth World's Poultry Congress, over the radio and through the newspapers. It was a great international meeting, with delegates from more than 50 countries. All phases of poultry-raising were discussed, and all countries had their exhibits, which made a striking feature of the Congress, according to Mr. Lee. The sessions were held at the huge Cyrstal Palace, an ideal building for a world gathering, with plenty of room both inside and out. Spacious grounds around the Palace were used for entertainment features and for two large tents which housed part of the live-bird exhibits.

Mr. Lee told me that delegates from practically every country had at least one common report. All told of the great interest in improving the conditions of poultry-raising; and all told of increasing production of eggs and poultry. Countries which are now importing large quantities of eggs may soon be producing many of these eggs at home; and some countries will situated to export poultry to European countries——Denmark, for instance—— are improving both their production and their methods of exporting. Thus, Mr. Lee gives the impression that there appears to be little opportunity for the United States to build up a European trade in poultry products. He believes we should plan our industry almost entirely on the basis of home consumption.

I asked him about the poultry breeds preferred in other countries. He said the exhibits included <u>several</u> breeds which we rarely see over here. However, he told me, our most popular breeds are also the most popular fowls in England. The Rhode Island Red, is especially popular over there, where the birds are commenty called "Rhodes." Other leading breeds are White Wyandottes and White Leghorns, and the Light Sussex is popular especially for its meat qualities. Barred Plymouth Rocks were also prominent in the exhibits, but Mr. Lee says that he noticed very few on farms.

Speaking of the live-bird displays, he reports that England, Canada and the United States had the largest and best exhibits. The exhibits

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showed, among other things, that breeding for egg production has been highly developed in England. They practice trap-nesting much more than American poultry farmers do. This was shown by the large numbers of fowls entered in the egg-record classes, with their trapnest records shown on each cage. Size of eggs, as well as number, is considered in all English official records.

In addition to the live-bird exhibits, there were educational and trade exhibits. Poultry research work, poultry methods, poultry products, and so on, were shown in these booths. The United States Department of Agriculture exhibited a mechanical hen, which attracted much attention. It showed a cross-section of the egg-making machinery, the machinery being run by electricity in this case. The trade exhibits displayed all sorts of incubators, brooders, feeds, and poultry equipment. Most of the English incubators and brooders were small machines, Mr. Lee said. The baby chick industry has not developed in England as it has in the United States. They were very much interested in the several makes of battery brooders on display from the United States.

The noticeable thing about the feed exhibits, to a visitor from the United States, were the relatively small use of corn——which, by the way, is always called maize in Europe. There has always been a prejudice in Europe against feeding corn to poultry. They have held that corn is too "heating." Mr. Lee says, however, that this prejudice appears to be slowly decreasing. English feeds are higher in bran and middlings and lower in meat products than American feeds. They use fish meal and vegetable proteins, but the total protein content of their rations is relatively low, as a rule. All—mash feeding has been growing in popularity in recent years. And this has led to a further step in feed manufacture. Mash is prepared in the form of small pellets, and fed in troughs and hoppers. This eliminates waste, and the fowls seem to eat pellets more freely than they will finely-ground mash.

Fattening poultry is more commonly practiced in England than in the United States, according to Mr. Lee. England is noted for producing fine-quality poultry flesh. Chickens are trough-fattened and then put on a cramming machine. Fattening is usually practiced on a small scale and the results are excellent.

Mr. Lee visited a number of poultry farms, as well as research institutions. "Trap-nesting is very common on most farms," he said. "There seemed to be great interest in breeding for high egg production, large egg size, and good breeding stock. Most of the flocks are comparatively small, and have moderate-sized yards for range. Climatic conditions are ideal for growing grass during most of the year. So the yards are easy to keep in splendid condition, and make green feed a simple problem. Nests are usually built on the outside of the poultry house. This allows more space inside for the hens. Sometimes colony houses are used, without dropping boards but with slatted wooden floors. These house a large number of growing chickens or laying hans. Cross-breeding is often practiced, I found, so that the sex of chicks can be told at hatching time. Then the male chicks are sold to fatteners and the female chicks to egg farmers.

"One of my most interesting experiences," Mr. Lee went on, " was a visit to a farm which kept more than 50,000 hens—mostly Leghorns. At the time the farm was being enlarged to carry several times this number. Modern mechanical equipment is being utilized extensively. There were American mammoth incubators and battery brooders, and large machines for mixing feed. Many of the

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houses had wire floors without dropping boards—— all arranged so that the boards below the wire could be quickly scraped clean with a mechanical scraper. No litter was used——either on the floor or in the nests. The nest had rubber bottoms with a whole in the center for the egg to pass through as soon as it was laid. As you would imagine, this device greatly reduced the number of dirty eggs."

Women play a very important role in the poultry industry of England, Mr. Lee reported. Not only on the general farms, he said, but in the educational and research work and on commercial farms. In fact, many delegates to the World's Poultry Congress were women. Girls do the poultry work on many of the farms, and the training of girls for poultry farming has come to be quite an industry on some farms.

Now, I <u>could</u> go on and on, with the material Mr. Lee gave me in our conversation, ---but I see my time is up. If there are any questions you'd like to ask, you might send them in to me at Station or at the Department of Agriculture, and I'll see that they are answered.

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ANNOUNCEMENT: Your Farm Reporter at Washington has just brought you some impressions from the World's Poultry Congress, held this summer in London, England. Remember to tune in again tomorrow at this time---for tomorrow is Your Reporter's day with the Federal Farm Board.

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YOUR FARM REPORTER AT WASHINGTON

RELEASE Thursday,

Sept. 4, 1930.

U. S. Department of a

#### POSSIBILITIES OF COOPERATIVE MARKETING:

No. 14: What Livestock and Wool Co-ops Have Accomplished and
The Outlook for the Future.

ANYOUNCEMENT: What are the possibilities of cooperative marketing? In our series of Thursday reports from experts of the Federal Farm Board, we have heard what cotton, tobacco, grain, dairy products, fruits and vegetables associations have accomplished. Today, Station in cooperation with the Federal Farm Board and the United States Department of Agriculture presents what farmers' livestock and wool organizations have accomplished, and the outlook for livestock and wool growers.

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Cooperatively speaking, we date things these days as either before or after the starting of the Farm Board.

Mr. H. Hulbert, of the cooperative marketing division of the Federal Farm Board, has outlined for us the before and after pictures of livestock and wool cooperatives.

Co-ops, it seems, had been trying to break into marketing at terminal points since back in 1890. In 1918 they finally broke into terminal marketing as a permanent thing, selling cattle, calves, hogs, and sheep on a commission basis and buying livestock on orders.

Last year, Mr. Hulbert says, the twenty-nine cooperative commission agencies on terminal markets handled twelve to thirteen million animals worth \$335,000,000. Nor is that all co-ops have done. During the past few years, there has been a trend toward the sale of livestock direct from farmers to packers without consignment through the terminal markets. The co-ops recognized the direct marketing trend. They tried to keep abreast of the times, by organizing the National Order Buying Company, a part of the business of which was to move livestock from farm to packer. In 1924, sales of that company totaled \$685,000 and by 1929 sales had increased to a little shy of eleven million dollars.

That, in a general way, was the situation, when the Federal Farm Board entered the picture. Taken altogether the co-ops had shown a remarkable growth and were doing a very considerable amount of business. But the separate associations were often competing with one another. True, twelve of the terminal agencies had federated into a rather loose trade association, but there was no close integration between the various sales agencies.

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During the past year, however, the Federal Farm Board has been encouraging the organizations of all our livestock cooperatives into one national association, with the idea that policies regarding the marketing and sale of livestock can be better formulated by one national organization, than through a number of separate co-ops.

The National Livestock Marketing Association has been organized and incorporated and is now a going concern with fifteen member co-op agencies; including twelve terminal associations and three direct sales agencies.

Mr. Hulbert says that it is hoped that the balance of the co-op organizations will come into this national set-up, so that all the bargaining power in the livestock associations can muster will be marshalled under one head.

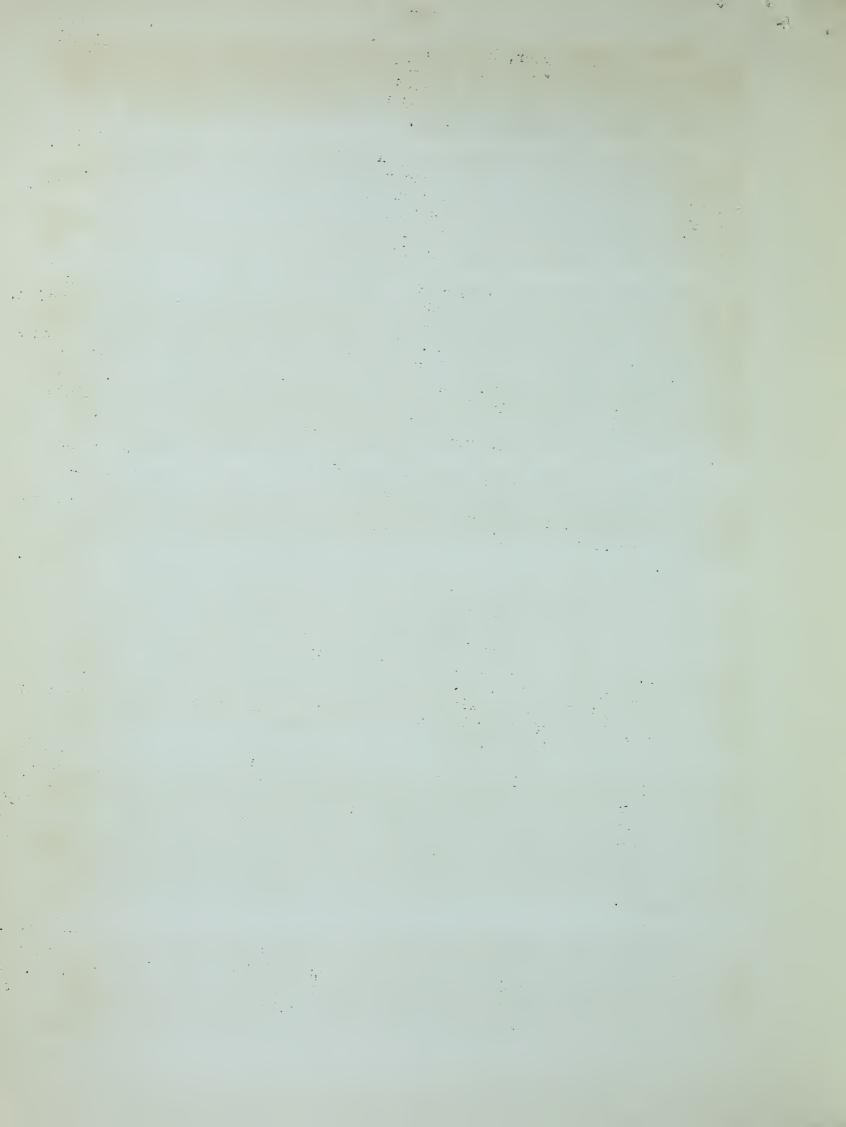
One of the chief functions of the new National will be the granting of loans to feeders of cattle and sheep at reasonable rates of interest, through a subsidiary corporation known as the National Feeder and Finance Corporation, and regional credit corporations. Up to eighty per cent of the capital requirements of regional credit corporations will be supplied by the National Feeder and Finance Corporation, and the remaining twenty per cent will be raised locally by individuals and various cooperative associations. The regionals will be formed in the areas covered by the Foderal Intermediate Credit Banks and will discount the cattle paper through those banks.

You see, the five hundred million dollars of the Federal Farm Board would not be enough to finance agriculture by itself so these regional credit corporations are formed to get producers in a position to use the credit facilities and discounting privileges offered by Intermediate Credit Banks.

Besides looking after adequate financing through these subsidiary corporations, the National Livestock Marketing Association has a research department to assemble information on the production, supply, and demand for livestock, the conditions in the meat trade, and the probable trend of prices, and the like. That information will be used as a guide in making sales and production plans. The aim is to give the farmers' cooperative sales agencies on the selling side of the market just as much information as the packers and order buyers have on the buying side of the market when they go out to bid for livestock.

The National also has a free claims department to look after the filing of papers arising out of losses to co-op members due to cripples, deads, and overcharges in freight, and losses caused through delays in shipments. A transportation branch has representatives to appear in cases involving freight rates on members' livestock. Also a livestock and meat department will work with the National Livestock and Meat Board to stimulate the demand and use of meat. Those are some of the services co-op members will get through their new National.

Cooperative wool organizations were not strong, and handled only a small per cent of the total clip of the United States, until the organization of the National Wool Marketing Corporation last year. This year, the National Wool Marketing Corporation states that it will handle 125,000,000 pounds of wool out of an estimated total clip for the United States of about



328,000,000 pounds. That is, for the first time, this year there will be concentrated into the hands of one selling organization between thirty and forty per cent of all the wool and mohair produced in this country.

With this volume of wool under one head, Mr. Hulbert points out, the National Wool Marketing Corporation should be able to demonstrate by the end of its first year the value of centralized control of a large percentage of total wool production.

The wool National is composed of regional and State marketing associations. To become a member of it, a co-op must have control of at least 500,000 pounds of wool or mohair. In the fleece wool States, where wool growing is not a major undertaking except in limited areas, regional wool marketing corporations have been organized which cover four or five States. In that way, the services and advantages of the National Wool Marketing Corporation have been made available to small producing sections as well as large ones.

The National Wool Marketing Corporation, through its subsidiary corporation, known as the National Wool Credit Corporation, is in a position to make pre-shearing advances to growers to finance their shearing operations and to make loans on wool covered by warehouse receipts up to approximately ninety per cent of the market value of the wool.

So you see in a year's time, nation-wide organizations prepared to adequately finance growers, have been set up by cooperatives made up of livestock raisers and wool and mohair growers. These two great farm industries, Mr. Hulbert points out, are well launched toward complete organization for more efficient and orderly marketing than ever before.

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ANNOUNCED: Mr. Hulbert has outlined for us what livestock and wool cooperatives have accomplished; especially since the formation of the Federal Farm Board. This time next week, in the fifteenth of our series of sixteen reports on the possibilities of cooperative marketing, we will have a summary of the Farm Board's cooperative marketing program. This series comes to you from Station \_\_\_\_\_ working in cooperation with the Federal Farm Board and the United States Department of Agriculture.

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September 5, 1930

NOT FOR PUBLICATION

Speaking Time: 10 Minutes

Dairy Interview No. 51: PREPARING THE DAIRY FOR WINTER SANITATION

AT WASHINGTON

ANNOUNCEMENT: Well, August is over and Your Farm Reporter at Washington seems to think winter is here already. Anyway, he tells me his subject for today's report is "Preparing the Dairy for Winter Sanitation." He brings you now the results of his interview with Mr. C. J. Babcock, Department of Agriculture dairy specialist. All right, Mr. Reporter.

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If you had asked me, I'd have said this question was <u>un</u>-timely.

But Mr. Babcock says no——it is not by any means too early to begin <u>preparing</u>

for winter. If you want to produce clean milk all winter long, why now is

an excellent time to be putting the best foot forward.

There's the question of feed, he suggested; and the little matter of cleaning up and painting stables; and the very important question of good ventilation; not to mention clipping and grooming, and various other chores.

You may have all these things taken care of. But on the other hand Mr. Babcock may have some suggestions that you hadn't thought about. I'm going to give them to you, mostly in his own words.

"Naturally, the main difference between summer and winter care," he began," is due to the different conditions under which cows must be kept. In summer they are usually in barns only for milking and feeding; in winter they spend more of their time there. Stable conditions and feeding methods thus get to be much more important in winter than in summer. The flavor and odor of milk, as well as the health of cattle, depend upon proper conditions and methods. And you have to be more strict about sanitation, because cattle are more likely to get dirty when kept in stables than when on pasture.

"Now," he went on, "this is a good time to give stables a good cleaning up. Paint or whitewash them if they need it. It's much easier to do this now than after you put the cattle in the barn. Clean walls, ceilings, floors, stanchions and windows do more than simply add to the stable's attractiveness. A more important function is the part they play in producing high-quality milk.

"Speaking of windows, see that they're all in good repair. A window or so usually gets broken during the summer.

"Now I would say that ventilation deserves as much emphasis as any one thing about the stable. Cattle can't be expected to keep in good health in dark, poorly-ventilated stables. The fact is, though, that it's pretty common to find stables which have either too much or too little ventilation in the

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winter time. And as far as I can see, there's very little reason for it.

There are so many inexpensive ways of controlling ventilation and still keeping proper temperatures.

"Just consider that a dairy cow breathes approximately 116 cubic feet of air per hour. That's more than 200 pounds a day. It's more than a fourth of the body weight of some cows, and it's about four times the weight of the food she eats.

"Then consider that in that same 24 hours the same cow will exhale from 12 to 18 pounds of moisture, and almost that much carbon dioxide. When you consider this, it's easy to understand why the air in an airtight barn soon becomes warm, moist, smelly, and not fit for broathing.

"The secret of good ventilation is proper circulation. That is, the bad air must be taken out and good air must replace it. For this reason, a large amount of air space alone is not sufficient. You might have one cow alone in a large barn and still have poor ventilation, and the cow would suffer from lack of fresh air.

"I mention these points, not because they are timely right now--- but because now is the time to get a ventilating system into working order for winter."

"Well, to continue. There's the matter of drainage. September is also a good month to see that the barn-yard is well drained. You might want to gravel it, or lay concrete, to avoid the winter and spring mud.

"If any of your radio audience are newcomers in dairying, I might also say that they'll have to figure on devoting more time to keeping cows clean than they have been the last few months. Careful grooming is very important. Thorough washing of flanks, udders, and teats just before milking is especially necessary in winter, because, as I say, cows may get dirty even in sanitary stables. Keep the long hair clipped from the flanks and udders, as this will make it easier to keep their parts clean.

They'll also want to remember that certain winter feeds impart undesirable odors to milk. Silage and some of the roots are common examples. To prevent this, remember to give such feeds right after milking.

"Coming of cool weather also brings new problems of cooling milk. And I'd like to make one suggestion. Don't quit using ice until you're sure that ice isn't necessary. The only way to be sure is to use a thermometer—— and use the thermometer to take the temperature of the milk, not particularly the temperature of the outside air. Milk should be cooled promptly and stored below 50° F."

Following our conversation, Mr. Babcock jotted down the titles and numbers of a few bulletins that he thought you might be interested in about this time of year.

For instance, if you're planning to build, or perhaps remodel, a barn, you'll find valuable tips in Farmers' Bulletin No. 1342, F, called "Dairy Barn Construction."

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There's an excellent bulletin on ventilation. It is entitled "Principles of Dairy-Barn Ventilation," and the number is Farmers' Bulletin No. 1393-F.

If you have some painting to do, write for the bulletin called "Painting on the Farm," Farmers' Bulletin No. 1452-F. Or, if you're going to lay some concrete, you can get free copies of two other bulletins that may be helpful. One is "Small Concrete Construction on the Farm," Farmers' Bulletin No. 1480-F; and the other is "Plain Concrete for Farm Use," Farmers' Bulletin No. 1279-F.

Still another suggestion is Farmers! Bulletin No. 954-F, called "Disinfection of Stables."

And getting down a little closer to the real problem of the dairymen, Mr. Babcock recommended Farmers! Bulletin No. 602-F, "Production of Clean Milk." It is timely any time of the year.

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ANNOUNCEMENT: This program concludes the radio appearances of Your Farm Reporter at Washington for this week. He'll be back again Monday. Meanwhile you might be writing for some of those bulletins. They're free, you know, and you may secure copies of the ones you want by writing to Station or to the Department of Agriculture in Washington.

April 125

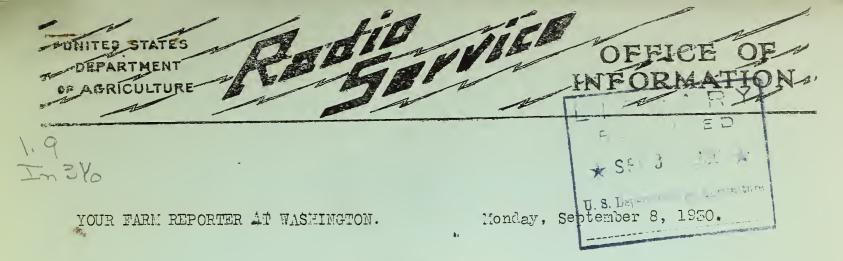
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Speaking Time: 10 Minutes.

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### A FALL CLEAN-UP OFTEN PREVENTS SPRING PARASITES.

OPENING ANNOUNCEMENT: At this time Station takes pleasure in presenting Your Washington Farm Reporter who is going to tell us of the unusual way he picked up information on the subject, A FALL CLEAN-UP OFTEN PREVENTS SPRING PARASITES IN THE LIVESTOCK INDUSTRY. Your Reporter got this information from the United States Department of Agriculture, and now he is ready to broadcast.

Folks, I want to talk to you today about cleaning up livestock and the livestock premises in the fall season in order to minimize parasitic troubles the following spring. Before I start on the regular program I want to tell you of the unusual way that I gathered the information on this timely livestock subject.

As most of you know I go over to the Bureau of Animal Industry in the Federal Department of Agriculture every Monday morning and interview a specialist on some timely livestock subject. I then broadcast the high points of that interview to you people wherever you happen to be.

On this particular occasion I arrived at the office of Mr. D. S. Burch, assistant to the Chief of the Bureau of Animal Industry, and I might add that Mr. Burch usually arranges for my interviews with the various livestock specialists. When I entered the office Mr. Burch said, "Well, Mr. Farm Reporter, I have arranged for you to interview a WOMAN this time. Can you do it?" "Sure, I said----direct me to her."

The lady I met is Mrs. Ida May Roe, and she's in the Office of Information of the United States Department of Agriculture. Her job is to help Uncle Sam keep up with the more than 1600 Farmers' Bulletins that have been published by the Department of Agriculture since its organization many, many years ago. Mrs. Roe spent her school days in the State of Delaware, but she has been working for Uncle Sam more than a quarter of a century, and is well informed on the various Farmers' Bulletins.

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If a man writes in and asks for information on some general agricultural subject, the letter is often passed on to Mrs. Roe, who, knowing the bulletins as we commonly say, "by heart," sends the inquirer the bulletin or bulletins containing the desired information. The morning that I visited Mrs. Roe on the fifth floor of the new agricultural building, she had a letter on her desk from a man in Detroit, Michigan, asking for information about Jersey cows; another letter from a man in Montgomery, Alabama, asking for information about Leghorn chickens, and still another letter, and this time from a preacher in San Antonio, Texas, asking for information about growing pumpkins. She said that one robust gentleman walked into the office one morning and said, "Lady I want a copy of all the publications that have ever been issued by the Department of Agriculture."

"Have you a truck?" asked Mrs. Roe.

"Oh, no, I'm afoot," replied the somewhat puzzled gentleman.

"Well," said Mrs. Roe, "the department has perhaps issued altogether twenty-five, thirty, or maybe fifty thousand publications. If you want information on some particular agricultural subject, I can give you the bulletins that contain such information, but I can't give you a copy of everything the department has published."

That remark convinced me that Mrs. Roe knows her job so I drove straight to the point by saying, "I want information on the subject, "A FALL CLEAN-UP OFTEN PREVENTS SPRING PARASITES IN THE LIVESTOCK INDUSTRY."

"All right," said Mrs. Roe. "To begin with you want a copy of what we call Miscellaneous Publication No. 25-M, called 'A CALENDAR OF LIVESTOCK PARASITES,' On page nine, that publication takes up the clean-up methods that should be put into practice the month of September, and on page ten those that should be executed during October."

Turning to page nine of the publication Mrs. Roe read, "Now is the time to dip your livestock for lice, sheep ticks, true ticks, and mange. Later it will be too cold to do more than apply palliative measures to keep down these pests. DO IT NOW while the weather is still warm and save yourself trouble later, as the pests are more troublesome in cold weather." That was the first paragraph only. The page—and every other page of the bulletin—is full of useful information of that sort.

Now folks, reach for that pencil and paper because I'm going to give you a number of publications on cleaning up livestock and livestock premises, especially in the fall of the year. Are you ready? Take either the number or the title, or both, if you have time, Here we go.

Picking up another Farmers' Bulletin Mrs. Roe said, "If you want information about sheep parasites consult Farmers' Bulletin No. 1330-F called PARASITICO DESEASES OF SHEEP. If you want information on sheep ticks, ask for Farmers' Bulletin No. 798-F, called SHEEP TICKTERADICATION, and if you want information on sheep scab, ask for Farmers' Bulletin No. 713-F, called SHEEP SCAB."

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I thought perhaps some of you might be interested in cleaning up poultry and the poultry premises this fall so I asked for information on that topic.

"Poultry raisers," remarked Mrs. Roe, "often clean up lice in the fall season. If you want information on that subject ask for a copy of Farmers! Bulletin No. 801-F, called 'MITES AND LICE ON POULTRY.' There are a number of other precautions that poultry raisers ought to take in the fall to safeguard poultry the following spring. If you want additional information on these subjects ask for a copy of Farmers! Bulletin No. 1337-F, called 'DISEASES OF POULTRY."

"What about the fall clean-up campaign for horses. Anything on that subject, Mrs. Roe?" I asked.

"Oh, yes," she replied. "for lice, mange, and ticks of horses, ask for a copy of Farmers! Bulletin No. 1493-F, called 'LICE, MANGE, AND TICKS OF HORSES AND HOW TO CONTROL THESE PESTS."

"Anything on hogs?" I asked.

"YES," said Mrs. Roe, "If you want to learn how to get rid of hog lice and hog mange in the fall of the year ask for a copy of Farmers' Bulletin No. 1085-F, called HOG LICE AND HOG MANGE AND METHODS OF CONTROL."

Swine raisers find it pays to use the swine-sanitation system as modified for farrowing on pastures in the fall. Ask for a publication known as INAFLET NO. 5-L, called PREVENTION OF ROUNDWORMS IN PIGS."

If you want information about cleaning up cattle scab this fall ask for Farmers' Bulletin No.1017-F, called "CATTLE SCAB CONTROL." If you want to clean out cattle lice this fall ask for Farmers' Bulletin No. 909-F, called "CATTLE LICE AND TYPEIR ERADICATION." And finally, if you want to get those ticks out of the animals' ears this fall ask for a copy of Farmers' Bulletin No. 980-F, called "SPINOSE EAR TICK AND METHODS OF TREATING INFESTED ANIMALS."

In regions where parasites interfere with sheep raising, breed ewes in time to lamb early, if you have the equipment, and market before the worms share your profits. Early lambs come before the parasites wake up from their winter sleep.

Now folks, I have just touched a few of the many points and publications Mrs. Roe gave me about the fall clean-up of livestock and livestock premises.

During this interview I was impressed with the fact that it pays to clean up livestock and livestock premises in the fall of the year while it can be done easily and well. If you wait until spring many parasites have become so entrenched that nothing short of tear bombs will cause them to send up the white flag.

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If you want detailed information on ways and means of conducting the fall clean-up, ask for the publications I mentioned. If you missed some of them ask for the one called Miscellaneous Publication No.25-MP, called "A CALENDAR OF LIVESTOCK PARASITES." It contains a list of all the publications I mentioned in this talk and many more.

CLOSING ANNOUNCEMENT: You have been listening to the Washington Farm Reporter broadcast a program form in cooperation with the Federal Department of Agriculture. Write this station for copies of publications mentioned in to-day's program, or if you prefer, you may write directly to the United States Department of Agriculture at Washington, D. C.

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Crops and Soils Interview No. 52:

The Farmstead Water Supply

ANNOUNCEMENT: Your farm reporter at Washington will now report to us what he has found out from the experts of the U.S. Department of Agriculture. Naturally, he has been thinking about the dry weather we have had in some parts this season. He has been inquiring ground a little more about that ———— Well, Mr. Reporter ————

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For some of us, "these are times which try men's souls."

There have also been times which test the farm water supply.

Some of our springs and wells have been tested and found wanting. In many cases, the water has been low. In others, it has been bad. In still others, it just hasn't been.

Of course, you can't make it rain. If there is no water to be had, that is a serious situation, as some folks realize. But Mr. George M. Warren, hydraulic engineer, of the Bureau of Public Roads, reminds us that in many cases springs and wells failed sooner than they should. If some of them had been planned to reach lower levels of ground water or to better intercept the flow, they would not have failed so soon. They might better have tided us over the long dry spell.

"Maybe so," you say. "But that advice won't water the past season's crops."

NO. Yet if the dry weather showed your water supply to be inadequate, better look into this matter of protecting yourself against running short on water again. You may be able to make your water supply more safe and certain. It is worth looking into. Mr. Warren has some valuable suggestions along that line in his Farmers! Bulletin on the "Farmstead Water Supply." It is Farmers! Bulletin No. 1448-F, issued by the United States Department of Agriculture.

One of the simplest, most inexpensive ways to deepen a dug well, Engineer Warren explains, is to sink a length of vitrified sewer pipe in the bottom of the well. Large, vitrified socket pipe, such as is used for sewers, comes in lengths of from two to three feet. You can just let down a section of that pipe from the top of the well. You excavate from inside the pipe. It is hard work. It doesn't cost much, and is a very good way to add two or three feet to the depth of your dug well. Of course, you

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can go deeper, if you want to. You can sink two or three or more sections of pipe one on top of the other. In that way, you can deepen your well without disturbing the original curbing.

In the dase of drilled or driven wells, it is a comparatively simple matter to sink the wells deeper. However, Mr. Warren gives this word of caution. Better get the advice of the United States Geological Survey or your State geological authorities before you go deep into the well business. It isn't always the case, that the deeper you go, the more water you find.

Plenty of wells have been sunk far down without reaching that plentiful supply of good water. In locating a well it is not only the lay of the land as you see it which counts. The underground lay of the land is most important. The kind and thickness and dip of the strata, below the surface will often determine how much and what kind of water you get. Driving a well deeper into an impervious layer of clay world bring you more and better water.

And that brings up this question of locating new wells. Mr. Warren says don't rely on a forked-stick for finding a well. There is absolutely nothing to that bunk. No water was ever found yet by the dip of a forked willow, or hazel, or peach stick. And Mr. Warren puts many of the patented electrical water finders in the same class with the forked stick.

Some of these forked stick artists, from their experience and observation of surface conditions, usually are better able to judge where water is likely to be found that the average person. But they are not guided by their forked-sticks.

The way to locate well water is to dig or drive actual test wells and make pumping tests at various levels. The well should be sunk deep enough into the water bearing material so the level of water in the ground won't sink during drouth below the bottom of the well. No new well should be regarded as complete until pumping tests have been run long enough to find out whether enough water has been tapped for the purpose of the farm or whether you have just struck a small pocket of water. In making the final pumping test, the discharge should be taken by pipes or troughs a considerable distance from the well and to lower ground if possible. Otherwise, the water may sink back and you may be pumping up the same water time and again.

For water for watering stock and irrigation and purposes other than drinking, Mr. Warren suggests that river or creek water, or even a running brook can be used to advantage by throwing a temporary log or boulder dam across the brook and installing a hydraulic ram. A hydraulic ram is one of the most economical pumps there is. You can get one for ten to twenty dollars, and use wherever you can get a fall of water.

Even the old spring can often be made to yield more water. Seeps and springs are the natural cropping out of ground water at the surface. They usually occur at the toe of a slope. Just raking off the leaves will often increase the yield of water. Or dig out deeper below where the spring comes out of the ground. In that way, you may intercept other rivulets or seeps below the one which forms the spring. As Mr. Warren explains what you do in that case is to practically build a shallow well in the spring.

On the other hand, it is a poor idea to try to build up or wall up.

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the sides of a spring, so as to increase the depth of water above the outcropping of the spring itself. In that way, you choke down the spring water. Instead of increasing the yield, you decrease it. In some cases, building up the curb above the natural surface of the spring has actual completely stopped the flow of the spring by deflecting it to other channels.

However, Mr. Warren says that a good many folks don't understand how ground water travels. Except in rock, the water in the ground seldom moves: in well-defined channels. On earth water moves pretty much the same way as it would in blotting paper. Surface water such as ordinarily found in streams and ponds is generally contaminated with organic matter and is unfit for drinking purposes. For drinking water which has percolated slowly through clean ground is best. As a rule, the deeper you go into the ground, the purer the water. It is freer from organic matter, but contains more mineral matter, so the more likely it is to be hard.

Water for domestic use should be clear, colorless, odorless, soft, neither strongly acid nor alkaline, and its temperature for general purposes should be about 50 degrees. It may be all those things, however, and not be pure. It may be all those things, and contain billions of disease germs. Many farm wells, cisterns, and other sources of water are contaminated from drainage from some nearby source of filth. And while trying to tide over the drouth, see that leaky pipes and faucets don't waste the precious stuff. But all those matters are discussed more thoroughly and in more detail in that bulletin on the Farm Water Supply. Just ask for Farmers' Bulletin 1448-F.

ANNOUNCEMENT: You can get one of those bulletins on the Farmstead Water Supply by writing either to this Station ----- or by writing direct to the United States Department of Agriculture. This Station ---- cooperates with the Department in presenting these reports from your farm reporter at Washington five times a week.

YOUR FARM REPORTER AT WASHINGTON

Wednesday,

September 10, 1930

## NOT FOR PUBLICATION

Speaking Time: 10 minutes

Poultry Interview No. 51: HINTS ON 1930 FALL CULLING

ANNOUNCEMENT: At this time Your Farm Reporter at Washington brings you, from the U.S. Department of Agriculture, a batch of timely hints on fall culling of the poultry flock. In view of the feed situation in many sections of the country, proper culling becomes especially important this year. I'll let Your Reporter tell you what he learned from his conversation with Mr. A. R. Lee, poultry husbandman for the Department of Agriculture. All right, Mr. Reporter....

Culling, said Mr. Lee, is a good business practice EVERY year. But when grain prices are rising, and when feed is short, and when summer egg prices have been relatively low———then close, careful culling necessarily goes hand in hand with profits. We have all of these conditions this fall.

But, said Mr. Lee, don't carry this to extremes. Close culling doesn't mean getting rid of the whole flock. And it's true that there have been large receipts of poultry at the markets recently——indicating that farmers are reducing their laying flocks much more rapidly than usual at this time of year. It indicates that some poultrymen may be marketing indiscriminately. I'd sum the question up by saying this: Rigid culling is desirable. But——DON'T cull out the good hens and the well-grown pullets. We need THEM in our business. Get rid of the poor producers and the good ones will bring good returns during the coming year.

Now, with this short introduction, let me give you a resume of Mr. Lee's ideas about the technic of culling.

This is the last call, you might say, for culling before all the laying hens go into their annual molt. Hens are already losing that school-girl complexion. They're dropping the dirty, broken, and nest-worn feathers that have protected them this summer. And --- when all hens have that ragged, half-naked, and run-down appearance it's very difficult to tell the good layers from the bad. So, if you haven't already culled on the basis of pre-molting basis, don't lose another day.

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Of course, you may have hens which have already molted——and which already have bright and shiny coats of new feathers. If you have, that's something else to think about. Such hens are generally poor layers. Early molters can ordinarily be culled out of the flock without fear that you're losing profitable hens. The hens to be saved are the ones which still had dirty and broken feathers and bleached legs around the first of September or later.

At this point Mr. Lee paused. "There's one thing you want to remember, though," he told me. "And that is this: Many flocks have been on a scant ration this summer because of low egg prices and rising prices of feed. And poor feeding will make a good hen look like a cull. Under such conditions the good hen may not get justice. Always, before culling, be sure that the feeding is good and that your fowls are free from parasites. It may not be the han's falut that she isn't laying as she should."

"Now for your question about HOW closely to cull. Well, that depends on the amount of floor space you have available. It depends upon the number of pullets you have to replace your hens. It depends on your feed. And so on:

"I would say, definitely, that most poultry raisers ordinarily do not cull closely enough for best results. This year especially I think we could increase profits considerably through closer culling. Get rid not only of the star boarders, but also of the hens on the border-line and those which return only small profits."

"Remember, this is an excellent time to get rid of the old hens. It hardly ever pays to keep hens for egg production more than two laying years. And it pays to cull carefully at the end of the FIRST laying year.

"Remember these points:

"A good laying hen at this season of the year is vigorous and in good physical condition, even though her work clothes are soiled and worn. She has a plump, bright-red comb which appears to be full of blood, waxy, and soft in texture. The wattles and comb of a loafing hen, on the other hand, are shrunken, comparatively hard, and tale and dull in color.

"Remember also that the color of legs of yellow-legged breeds is inclined to bleach or fade when hens are laying freely. Loafing hens often have yellow, richly colored legs at this time of year.

\*The pubic bones --- one on each side of the vent --- are spread well apart and flexible in a good layer at any time of the year when she's laying.

"However, perhaps the most important point of all is time of molting.

If your hens did not start to molt by September 1 you can usually count on her to be a good layer."

"Weeding out the low-dgg producers," Mr. Lee wound up, ""is the quickest means I know of, of increasing egg production and egg profits. Culling not only cuts down the feed bill but it leaves a breading flock that will pro-

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duce higher-producing offspring. All surveys show that poultry profits are directly related to production. And, as I've said before, this is going to be especially true this fall and winter."

Mr. Lee went on to tell how they cull at the Department of Agriculture poultry farm near Washington, D. C. Naturally we can hardly compare a government farm with an ordinary farm. But this struck me as interesting enough to pass along to you. The Department keeps in its flocks only the Leghorn hens that have laid 225 or more eggs in a year. Rhode Island Reds and Barred Plymouth Rocks must lay at least 200 eggs to save themselves from the block. Of course these hens are trap nested. That's a pretty high average, and such an average would not be practicable on most farms. But it does show what careful breeding and careful culling can accomplish. It indicates that our national 100-egg average could be made considerably higher without much trouble.

Mr. Lee advises selling culled poultry just as soon as possible after culling. They eat just as much feed after culling as before. And the same thing applies to cocks and cockerels. Dispose of all cockerels, except those selected for breeding, just as soon as they are large enough.

I take it that you are familiar with good culling practices. However, if you feel that you need more information, you can doubtless get it from your county agent or from one of your neighbors who has had long experience. Taking out the lowest producers is an easy matter, but close culling does require some study. You will also find detailed information in Farmers! Bulletin No. 1524, called "Farm Poultry Raising."

ANNOUNCEMENT: You have just heard Your Farm Reporter at Washington, bringing hints on 1930 fall culling from the Department of Agriculture in Washington. If you want a copy of that bulletin write either to Station or direct to the Department of Agriculture. The title is "Farm Poultry Raising," and the number is Farmers' Bulletin No. 1524.

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POSSIBILITIES OF COOPERATIVE MARKETING:

No. 15: How Your Community Can Take Part in The Cooperative Marketing Program.

ANNOUNCEMENT: Great are the possibilities of cooperative marketing. In our reports from your farm reporter at Washington we have heard what the Federal Farm Board has done, and what successful farmers! co-ops have done, and how they have done it, and the outlook for the future. Today we come to the heart of the whole matter. Your reporter has asked the experts how our community can take part in the cooperative marketing program ---- Well, Mr. Reporter, what can we do about it? ---

How can our community take part, in the cooperative marketing program? I asked Dr. Bomberger that ----- Dr. Frank B. Bomberger, who is in charge of the organization work of the Federal Farm Board.

He suggested that the first thing to consider is what our local situation is. How can our local community be benefited by a co-op?

To get the answer to that question will take some sort of survey of the actual conditions. That survey may be a highly technical affair or it may be just a general review to see just what we have. There may already be co-ops which meet all the needs. Whether it is dairy, or poultry, or tobacco, or potatoes, or livestock, the same is true. The survey may show the marketing needs of the farmers are pretty well taken care of.

Taken by and large, however, Dr. Bomberger says it will be the exception rather than the rule, if our community is found to be fully equipped with cooperative marketing machinery.

A survey of the community, and the stuff produced, and the methods of marketing it, is very likely to bring to light a situation which most of us may not be consciously aware of.

I can hear some of you mambling now, "How you go about starting such a survey?"

That's easy. The machinery is already at hand. For example some of the farm organizations, including the county agents and the extension specialists are naturally interested in and acquainted with the situation.

But let's assume we have been led to induce the extension forces to make a preliminary survey.

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The next thing, Dr. Bomberger advises, is to effect some sort of temporary organization or more formal organization to take the findings from the preliminary survey under consideration.

And right there, he reminds us, we've got to take into consideration not only our own community situation, but also the needs of adjoining communities. These days, no farm product can be marketed strictly on a community basis. We have to think in terms of our whole region, which produces the same sort of stuff. For some products, a region might include several counties or even several States.

Dr. Bomberger declares that is one of the finest influences of the whole cooperative marketing movement. It has destroyed the narrow insularity of our local community by tying us up with other communities beyond our old horizon. It has broadened our economic and social outlook.

A detailed survey may be undertaken by some of the existing farm organizations, which usually have a very intellingent interest in the economic situation of the farmers. But even in lack of such an organization, there is no reason our informal temporary committee should not give serious consideration as to whether a co-op is needed or advisable, and, if so, just what type of organization will best fit the special circumstances in our case.

Dr. Bomberger warns us in discussing the prospects to remember the principles which have been followed by successful co-ops in our line and in other lines of farming.

For example, we want to investigate whether there is likely to be big enough volume of the product in our community to make an organization worth while.

Then there is the question of whether the existing methods of handling are efficient and economical. The real test of a cooperative marketing association is whether it can attend to the marketing more efficiently than can the private organization.

Assuming that the study of the results of the survey indicate the desirability of forming a co-op, the effort then becomes very definitely an organization program. That is, we have to consider how the other producers handling the same crop we do can be led to recognize the need and the value of supporting the movement by joining the organization. There are no set rules for doing that.

Often the community program will logically become part of the regional cooperative program. In that case, our community would adapt its methods so as to fit into the larger, regional program.

Often, however, there is no larger regional unit. In that case, Dr. Bomberger suggests, that our community organization may become the mucleus around which other similar units can be formed.

A co-op movement can be made to spread from our enthusiastic center to surrounding territory.

That's not a mere dream either. A large number of our big national and regional co-ops have reached their present growth by the gradual enlargement from small local units. As the local reached the limits of its effectiveness on an individual, isolated basis, it was found desirable to federate more and more into larger and larger units.

Now that history of the development of co-ops in this country seems to imprese on our minds two very important facts.

The two important things to keep in mind when considering the organization of a cooperative association are:

First, we need to consider the strictly local community conditions as such.

Second, we need to bear in mind the regional or national aspects of the problem.

Dr. Bomberger says quite seriously that the effectiveness of our Federal Farm Board is largely dependent on the effort that is being made to bring about the grouping of local co-ops into regional and national cooperative sales agencies.

So you see where our local co-op problem ties right in with the problem as a whole. When I took this matter up with this organization specialist, I had that far-away feeling. The Federal Farm Board seemed a thing apart. I asked how our community could take part in the cooperative marketing program, but I could hardly see just where it would fit in.

But I think that now we can all see, as Dr. Bomberger points out, that a consideration of our local community market needs brings us to a vizualization of our great cooperative marketing program which centers in the Agricultural Marketing Act. That law contemplates that, sooner or later, there shall be brought into existence a national system of producer—owned and producer—controlled cooperative marketing agencies for the handling of the agricultural commodities of America.

ANNOUNCEMENT: You have just heard how your community can take part in the cooperative marketing program. That was one of the series on the possibilities of cooperative marketing which this Station ----- has presented together with the Federal Farm Board and the United States Department of Agriculture.

the state of the s . . :  YOUR FARM REPORTER AT WASHINGTON

Friday, September 12, 1930

# NOT FOR PUBLICATION

Speaking Time: 10 minutes.

Dairy Interview No. 51: HOW ABOUT THAT WINTER FEED SUPPLY?

ANNOUNCEMENT: At this time Station---- takes pleasure in presenting Your Farm Reporter at Washington, a radio spokesman for the U. S. Department of Agriculture. This is dairy day for Your Reporter. And he brings you now a report on checking up on the winter feed supply. All right, Mr. Reporter.

I've just had a talk with Mr. T. E. Woodward, practical dairyman and the man who's in charge of feeding experiments at the government experiment station at Beltsville, Maryland.

Mr. Woodward remarked about the importance of checking up on the winter feed supply now----especially in view of feeds conditions resulting from the drouth. He emphasized the importance of saving low-grade hays and feeds, for the same reason.

"The drouth," said Mr. Woodward, "has created a situation which demands the saving and utilization of ALL available crops and stocks of feed, no matter how low in feeding value they may be. The dairyman occupies a more fortunate position than many of his fellow farmers. His income from the sale of dairy products should permit him to buy much if not all the feed for his herd and thus be able to carry on through adverse conditions. Still the expense of feeding the young, non-productive stock may place on him a burden which he can not well carry. The sacrifice of many valuable heifers which are needed for replacements in the dairy herd appears imminent unless energetic steps are taken to preserve and conserve all materials having any nutritive value whatever. We all know that such material as wheat straw is a poor feed for a milking cow, but we also know that cattle will subsitt upon it for a considerable time and that it is much better than no feed at all."

According to Mr. Woodward, it's up to dairymen in many different sections of the country this fall to save the low grade feeds or sacrifice valuable heifers. Naturally, no progressive dairyman wants to sacrifice his future milkers, so what is he to do?

Well, Mr. Woodward has just answered that question once, but I'm going to give you his more complete answer to the same question. Here it is:

"A trip through the drouth-striken regions is enough to convince even the most casual observer that much wheat straw is going to be wasted this year just as has been the case every year since time immaterial," he said. Most of the stacks of straw are just as the thresher left them, but some few have been "topped out" so as to shed water and the straw which always spreads out at the base of the stack has been cleared analy and saved.

There is another way in which the supply of straw may be conserved. Wheat straw is commonly used for bedding. Many farmers will be able to substitute other materials and thus save their wheat straw for feeding. In some sections sawdust is available for the hauling while in other sections many different kinds of leaves may be used, while in still other sections even weeds may be mown, cured and stored away for winter bedding.

"What has been said regarding wheat straw applies in like manner but more forcibly to the straws from obts, and the legumes---because these straws are SUPERIOR in mutritive value to wheat straw.

"Then there is another crop the waste from which has always been enormous. That crop is corn. It is not uncommon to see shocks of corn, much of it unhusked, in the field even in late winter. The loss of food nutrients and in palatability thru prolonged exposure to the weather is very great, but still perhaps no greater than would be sustained by any other crop under similar conditions."

Now, my friends, you have heard what Mr. Woodward of the United States Bureau of Dairy Industry has said about saving all the Low grade hays and feeds for use this fall and winter. He emphasized the fact that we lose a lot of feed every year by leaving wheat straw, oat straw, soybean, hay, cowpea hay, lespedeza hay, various grass hays, other crops and even corn exposed to the weather until way long in the winter.

I asked Mr. Woodward for a comment on the last sentence, and he gave it.

"Now," he said, "an automobile manufacturer does not make new automobiles and then leave them out in the weather to deteriorate. He places them where they will be protected from the weather so they will not deteriorate.

When there is a general country-wide shortage of livestock feed like we have in many sections of the country, this fall, dairymen ought to try to save every pound of feed that it's possible and practical to save. The way to save this feed is to copy after the automobile manufacturer---that is as soon as the hay is ready to save---save it, and then try to find a place to store it so that it will deteriorate just as little as possible until fed or used in other ways."

Every tub stands on its own bottom, and it's up to every individual dairyman to try to provide feed for his own herd this winter. In some sections where the season has been normal the problem will not be hard. In others it will be mighty hard. Therefore, save as much hay and feed now as you possibly can—even though it be of a low grade

"Mr. Woodward," I interrupted, "corn silage is a great dairy feed in many sections. The crop is virtually ruined in some parts of the country. What about it?"

"That's very important," he said. "While the corn crop is best utilized as silage there is much corn that will not or can not be put in the silo this fall. The problem is how best to handle this corn so as to obtain maximum returns from it.

"In the drouthy regions the corn will vary in height from a foot or so on up. Some of it has ears and some has not. The very small stuff can be best saved by grazing. That which is large enough to cut but has few or no ears should be harvested while most of the leaves are still green and put in shocks. Just as soon as it has dried enough so it will not spoil when stored in quantity it should be placed under cover or in stacks where it will be protected from leaching. In other words, such corn should be handled as nearly like a hay crop as possible.

"The corn that has developed ears must necessarily be cut later than that without ears, otherwise the grain will not be sufficiently mature to keep. Still, in view of the need this year for roughage it may be well to cut the corn a little earlier than usual and thus secure greater feeding value in the stalk and foliage. The corn should be husked as soon as it is dry enough to keep and the stover stored at once under cover or in stacks. The idea back of these recommendations is to secure maximum nutritive value from the roughage by harvesting it while still reasonably green and then curing and storing it with as little loss of leaves and green color as possible."

Summarizing, Mr. Woodward recommends the saving of as much hay and feed as possible this fall; the saving of even low grade feed and hay often discarded in normal years, and the general saving of hays and feeds by cutting and curing them properly and then by housing or protecting them in some other way from the weather.

CLOSING ANNOUNCEMENT: You have been listening to one of the regular Farm Reporter programs broadcast from Station---in cooperation with the Federal Department of Agriculture.



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NOT FOR PUBLICATION

All Regions.

Speaking Time: 10 Minutes.

#### LIVESTOCK SHELTERS

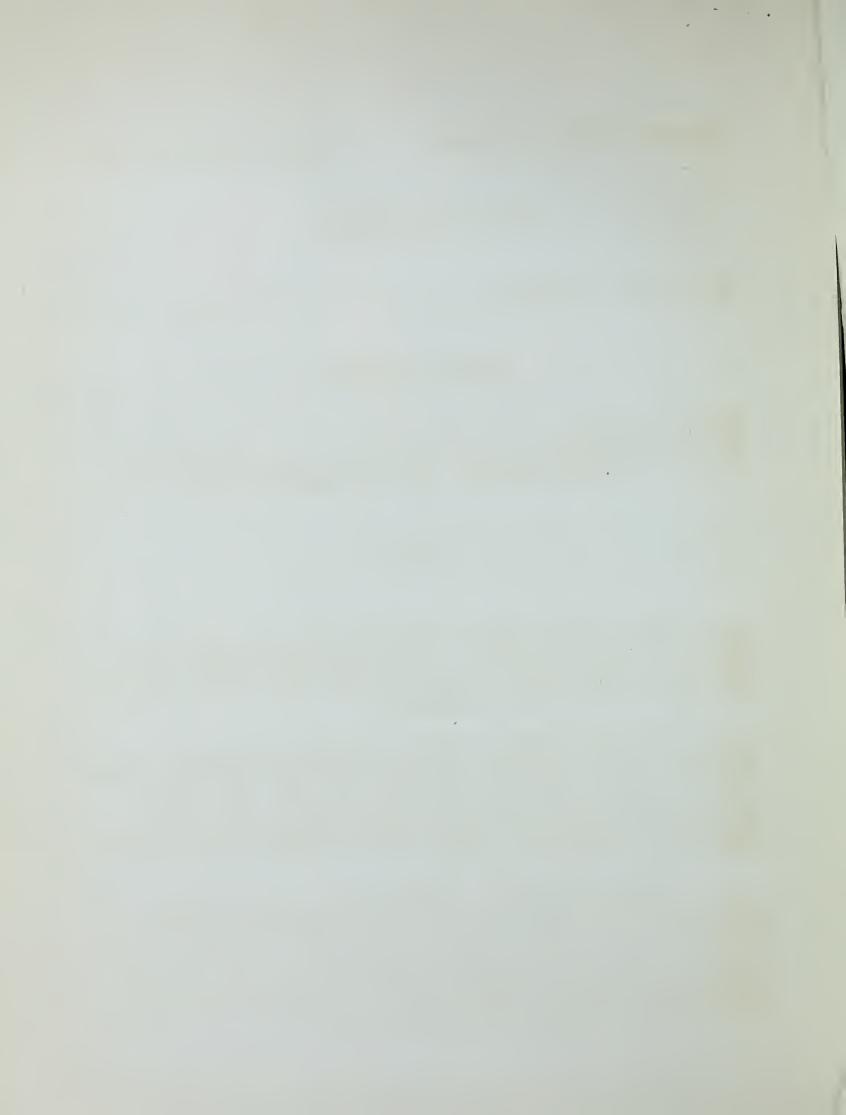
OPENING ANNOUNCEMENT: At this time Station \_\_\_\_\_\_ takes pleasure in presenting Your Washington Farm Reporter who is going to talk on the subject-----LIVESTOCK SHELTERS. Your Farm Reporter now has the "mike."

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Folks, I want to talk to you at this time about sheltering livestock from Old Man Weather. I open this program mindful of the fact that thousands of animals have no shelter aside from the blue sky, rocky bluffs, forest trees, and twinkling stars, and that some people even think livestock shelters unnecessary.

I am frank to admit that I do not belong to that class. I believe, with a few exceptions, that generally speaking it pays to house livestock. I know from actual experience that dairy cows exposed to cold, rainy weather often fall off in milk production, and that beef cattle do better when they have some kind of shelter, especially during long spells of bad weather. Hogs, sheep and poultry all, as a general rule, respond favorably to shelter.

This is the fifteenth of September and it's quite possible that some of you will want to make arrangements for some kind of shelter for your livestock this fall and winter. If you do perhaps what I am going to say will be of interest to you because I'm going to tell you today what some of Uncle Sam's livestock specialists told me about livestock shelters, and at this time next Monday, I'm going to try to tell you what Uncle Sam's building engineers have to say about the actual laying out and building of livestock barns and shelters.



In talking on this subject of livestock shelters I am aware that different sections of the country require different types of livestock buildings----some much more substantial than others, but generally speaking the underlying principles of housing livestock are about the same all over the country. In some sections it's necessary to house livestock from actual cold. In other sections the housing is a protection from the hot sun, cold rains, snowstorms, winds, and so on down the line.

W. H. Black is in charge of beef-cattle investigations for the United States Bureau of Animal Industry. I asked Mr. Black if it pays to provide some kind of a shelter for beef cattle.

"Oh, yes," he replied, "generally speaking, it certainly does. Of course, it's not necessary to provide elaborate or expensive barns for ordinary beef cattle, but they should at least have a shelter which provides them with a dry roof, and sufficient siding to break the cold winds."

"Any precautions about these beef cattle shelters?" I asked.

"Yes, "said Mr. Black. "ONE. Beef cattle should have a roof to protect them from the cold rains, and perhaps the hot sun in some sections where natural shade is not available, and windbreaks to protect them from cold winds in the winter, <u>BUT</u> beef cattle shelters must not be close and tight. They must have plenty of ventilation and light."

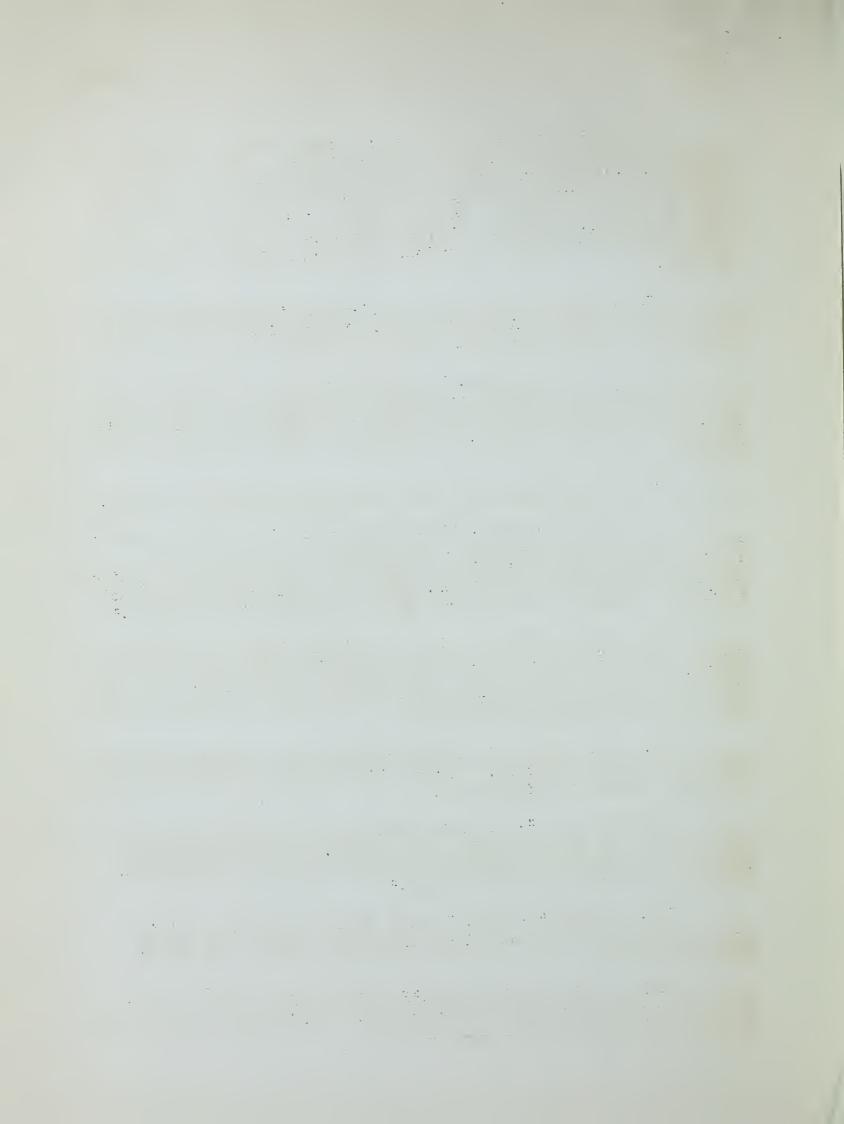
So, for beef cattle the Bureau of Animal Industry recommends, except in unusual cases, some kind of shelter in keeping with the climate, section, and value of the herd. These shelters should have a roof that will shed water and walls or windbreaks of some kind, but must have fresh air, plenty of ventilation and light.

Mr. T. E. Woodward is manager of Uncle Sam's experimental dairy herd at Beltsville, Maryland. I asked him about the profit derived from the proper housing of dairy cattle.

"Oh," he said, "I wouldn't think of trying to operate a dairy herd without some kind of housing arrangements. Such arrangements need not be elaborate or expensive, but they ought to be DRY AND COMFORTABLE and ready for use when needed."

"Mr. Woodward," I said, "do you think that standing out in a cold winter rain for just one night will cause a cow to fail off in milk production?"

"Think? Why man," he said,"I KNOW IT. If you want a cow to give milk----feed her and take care of her, and if she's the right kind of cow she'll respond at the milk bucket."



And now folks, that's a summary of what Mr. Woodward of the Bureau of Dairy Industry had to say on the subject of housing dairy cattle. They do better in most sections of the country when provided with some kind of a shelter. It need not be elaborate or expensive, but it ought to be dry and comfortable. Ventilation and light are just as important in housing the dairy herd as in housing beef cattle.

The next livestock specialist that I tackled bears the name of Dr. S. S. Buckley and he's in the office of swine investigations for the Bureau of Animal Industry. After placing him on my little witness stand, I said, "Dr. Buckley, do you think it pays to provide a shelter for hogs?"

Looking straight into my eyes he said, "Did you ever hear hogs outside of a shelter squealing and fussing on a cold, rainy night?"
"Oh, yes," I replied, "plenty of times."

"Well," he said, "that ought to answer your question. Such hogs generally fuss because they are cold, wet and uncomfortable. Turn them in a dry, comforable shed and notice how quick the fussing stops."

According to Dr. Buckley, hogs that are forced to endure cold, rainy weather without shelter may, largely as a result of such exposure, develop such troubles as hog influenza, hog pneumonia or perhaps, other troubles. The Bureau of Animal Industry lost several hogs at the experiment farm at Beltsville, Md. near Washington, this summer on account of the extreme hot weather. They didn't have enough shades during the extremely hot weather. You know when the thermometer passes 100° around Washington it's hot. That's they shelter is valuable during the hot summer as well as in the cold winter.

There's a simple and economical hog shed or shelter suited for your particular section regardless of where you live. Ask your State agricultural college for information on this subject.

Just across the hall from Dr. Buckley is another one of Uncle Sam's livestock specialists. His name is Spencer---D. A. Spencer, and he's in charge of sheep investigations for Uncle Sam. I moved my little witness chair across to his office and asked him to take a seat and tell me about housing sheep.

"Well," he said, "sheep, especially range sheep, are handled a little differently from the ordinary run of livestock. However, most sheepmen, taking the country as a whole, find it profitable to provide some kind of a shelter for their sheep. Heavy snows, cold rains, and hard winds are usually hard on sheep. Sheep shelters need not be expensive nor elaborate, but they ought to be DRY and COMFORTABLE. What they need mostly is a good roof and windbreak, and in hot climates the shelter comes in handy for a shade."

Down the hall from Mr. Spencer is located Alfred R. Lee, poultry specialist for the Bureau of Animal Industry. He broke my witness chair, and that stopped me from gathering further testimony on this livestock-housing question, but I got his testimony which reads about like this:

"Poultry raisers know it is profitable - with rare exceptions - to provide suitable housing quarters for their flocks. Exposing poultry to cold, rainy weather, drafts and so on, are both costly and troublesome."

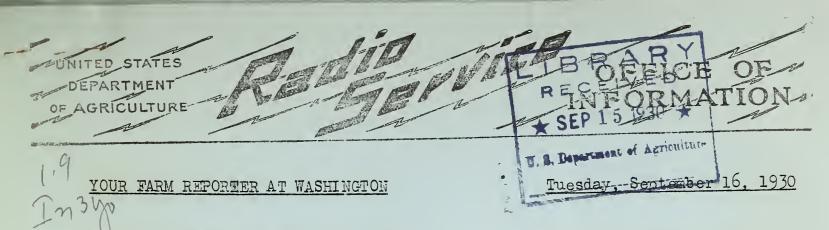
Remember now folks, that next Monday I'm going to talk to you about laying out and constructing livestock buildings and sheds. If you want additional information on today's subjects ask for the following Department of Agriculture publications:

FEED-LOT & RANCH EQUIPMENT FOR BEEF CATTLE is Farmers' Bulletin 1584-F
DAIRY-BARN CONSTRUCTION ------ is Farmers' Bulletin 1342-F
HOG-LOT EQUIPMENT ------ is Farmers' Bulletin 1490-F
EQUIPMENT FOR FARM SHEEP RAISING----- is Farmers' Bulletin 810-F
POULTRY HOUSES AND FIXTURES------ is Farmers' Bulletin 1554-F

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CLOSING ANNOUNCEMENT: You have just listened to one of the regular Washington Farm Reporter programs broadcast from \_\_\_\_\_\_ in cooperation with the Federal Department of Agriculture. Write this station for copies of the publications mentioned in today's program.

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Crops and Soils Interview No. 53:

Mixed Car-lot Shipments
of Fruits and Vegetables

ANNOUNCEMENT: Now, let's talk about getting farm truck to market. Your farm reporter at Washington has been getting a little information from specialists of the United States Department of Agriculture on the direct shipment of fruits and vegetables in mixed carloads. Well, Mr. Reporter, what about shipping that way anyway? ------

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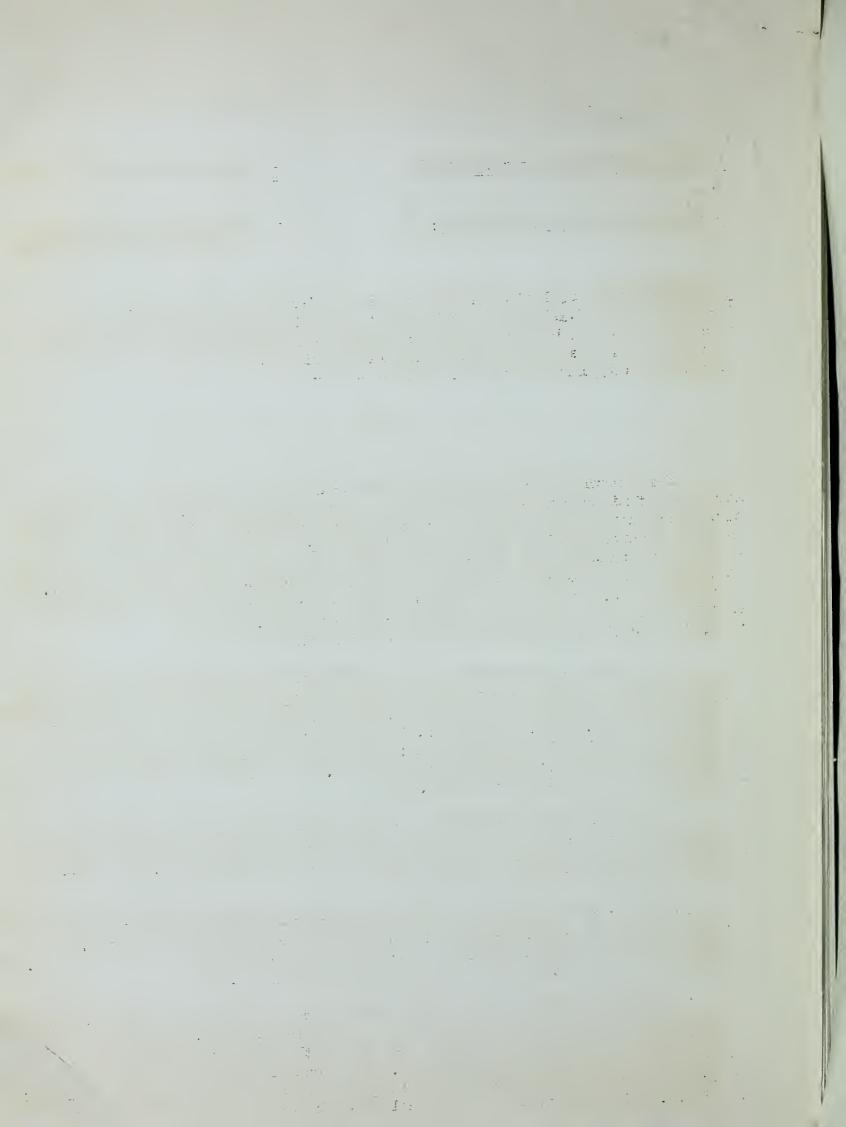
Some people out our way have been struck with the idea of making more use of mixed carload shipments of fruits and vegetables. By "mixed carloads" they mean shipment of fruits and vegetables. By "mixed carloads" they mean shipment of two or more vegetables or two or more kinds of fruit in the same care. Many shippers say that some of the small dealers who can't handle a full car-load of any one kind of vegetable, can handle a mixed care. Then, you know, where we produce a lot of different fruits or vegetables, it is often hard to get up a full car load of each kind. That is especially true, toward the beginning and end of the shipping season.

To find out just what are the prospects along this line, I took up this matter of mixed car shipments with Market Specialist J.W. Park, of the United States Department of Agriculture. I had a very good and special reason for picking on Mr. Park. He and Mr. Brice Edwards have just completed a survey of mixed car shipments to small towns and big cities direct from producing regions in all parts of the country. I knew he could set us straight on this mixed car business.

From what Mr. Park says, it would seem that the best chance for development of mixed-car shipments direct from producing regions is in the small town two hundred miles or more from the big market centers. That is, out of ordinary reach by motor truck.

Mixed car shipments in recent years have totaled between four and five per cent of the total shipments of fruits and vegetables in this country. But the use of mixed cars has not increased as much as some folks might expect. One of the big reasons for that has been the motor truck.

Many big fruit and vegetable dealers, as well as the chain stores, distribute by truck to their connections throughout large areas. Many dealers in the small markets prefer to buy from dealers in the big markets rather than direct from the original shipping point. They can often get the stuff at better prices and with less risk of loss by buying at a big market nearby rathe: than F.O.B. shipping point a considerable time before the arrival of the shipme.



Then, too, in some markets, several dealers will go in together and split a straight car lot of one kind of fruit or vegetables among them. That tendency has also helped keep down mixed shipments.

Many dealers claim that the quality of the stuff included in mixed cars has been below average. Some fruits and vegetables also are not suited to mixing with others in the same car. For instance, a mixture of watermelons, which are shipped in ventilated cars or box cars, with cantaloupes, which are shipped under refrigeration, would not be desirable. Onions, which take plenty of ventilation, are not adapted to shipping with many other vegetables. Tomatoes and bananas, which ripen en route require car conditions not suitable for many other fruits and vegetables.

Mixed shipments mean more trouble in loading so as to prevent shifting. In some cases, it is more difficult and expensive to assemble mixed car loads than straight car lots.

On the other hand, Mr. Park points out, there are some distinct advantages in mixed car shipments. Mixed car loads have the better of it in refrigeration facilities and usually in transportation charges as compared with less than car lot, freight and express shipments. The stuff arrives in better condition at less cost.

That question of freight charges is a big one with handlers of mixed cars. Often all the stuff in a mixed car has been forced to go at the rate of t commodity in the mixture which by itself would take the highest rate. In recent years, however, Mr. Park says , some railroads have made better rates for mixed car shipments. Under favorable freight rates on mixed cars wider and more thorough distribution may be possible, and less delay in transportation than where redistribution is made from a large market.

Mr. Parks estimates that the small cities in the West, in the Rocky Mountain Region, and in the South, offer the most promising field for the cevelopment of mixed car business, because there are fewer of the big market centers in those regions than in the Northwastern and North Central regions.

In the small markets, located at considerable distance from the big market centers, where it is impractical to redistribute by truck or rail, dealers may find it to their advantage to buy mixed cars direct, Mr. Park says, but adds this word of advice.

When such cars are sold in small markets, they are usually made up on order to meet the buyers' needs. That may mean considerable additional expense in assembling the produce. However, the market expert says, where mixed car rates compare favorably with straight car load rates, the lower cost of direct shipment and the freshness of the product may influence small dealers to expand their mixed car business.

The popularity of the mixed car shipments would be increased, he thinks, if greater came was taken in grading and packing. Then too, dependable sources of supply where desired mixtures are regularly available in season would be a stimulating factor. From what he says, I judge that the folks who ship mixed car lots will have to think a little more in terms of building up a steady market, rather than from the standpoint of their own convenience at the time of loading.

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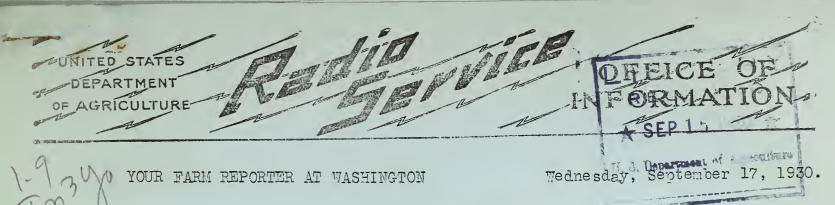
As a general rule, he suggests that only commodities be mixed which will stand similar treatment in shipping. For example, beets and carrots would make a good mixed shipment for Texas. From western New York, apples, and beets, and carrots, and turnips, and pears would be all right for a mixed shipment. Kale and spinach or peas and lettuce might be well for the Norfolk District of Virginia. Peppers, beans, and eggplants or mixed citrus fruits would be a good combination from Florida. California shipments might well include lettuce and peas or peaches, plums and apricots. Washington state might make up mixed cars of peas, cauliflower and lettuce or colery and lettuce.

But right here I am going to make a suggestion that Mr. Park didn't mention. If you are really interested in this matter of mixed shipments, get a copy of the results of that survey giving the complete facts and figures. It is a mimeographed circular issued by the Bureau of Agricultural Economics of the United States Department of Agriculture.

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ANNOUNCEMENT: You can get that circular either by writing direct to the United States Department of Agriculture or by writing to this Station———. We cooperate with the Department in presenting this series of reports from your farm reporter at Washington.

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NOT FOR PUBLICATION

Speaking Time: 10 Minutes

Poultry Interview No. 53: THE FALL MARKET SITUATION

ANNOUNCEMENT: At this time Station again presents Your Farm Reporter at Washington, who brings you today his report on poultry. As we're on the eve of the official fall season, Your Farm Reporter has been busy this week rounding up facts and figures on the market situation. He brings you information now, from the Bureau of Agricultural Economics in the U.S. Department of Agriculture. All right, Mr. Reporter. ..

With your permission, I'll start again with a few remarks about the late lamented hot weather.

Everything seems to date from the drouth these days, and the market situation for poultry and eggs is no exception.

Take the egg market for the month of August. And let me quote from the market news service report of the Bureau of Agricultural Economics. "The August egg market," it says, "was featured primarily by a rapid falling off in receipts at the four large markets of New York, Boston, Philadelphia, and Chicago." And then it goes on to say, "And also by the unusually poor quality of the current arrivals at those points. Both conditions were the direct result of the unseasonable heat."

Let's look into the second condition first. In some respects it presents the most striking features of the situation. As a result of it, there has actually been a scarcity of high-quality eggs coming to market, and an oversupply of low-quality eggs. And what is perhaps more interesting, there has been a very wide price differential between the various grades.

Mr. B. H. Bennett, of the Bureau of Agricultural Economics, dug up the following comparison from the figures compiled by the bureau. High quality eggs, grading as extras, were bringing 34 cents on the New York market as compared to 42 cents a year ago. They were selling 8 cents lower than in 1929. But lower quality eggs, grading as "firsts", were bringing only 27 1/2 cents as compared with 37 cents a year ago, a difference of 9 1/2 cents. Thus high quality eggs were enjoying a spread of 1 1/2 cents above lower quality eggs, on the basis of 1929 prices.

And this spread, Mr. Bennett points out, would undoubtedly have been still greater, had it not been for one factor. This factor is the large

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supply of high quality eggs in storage to fall back upon. The out-of-storage movement began about two weeks earlier than usual this year, and this is the reason. Dealers were unable to fill their orders for high-grade eggs from the fresh supply coming to market——so they were forced to draw upon storage supplies. And they are continuing to draw upon this reserve supply.

If you're looking for lessons, you can undoubtedly find them in this exercience. For one thing, it presents a very striking example of how high quality produce holds up better, in price, than low quality produce. And I suppose you can also draw a moral from the large amount of low-quality eggs sent to market. It seems reasonable to assume that many farmers did not make allowance for the high temperatures. For, since eggs are shipped in refrigerated cars, much of this deterioration must have started on the farm.

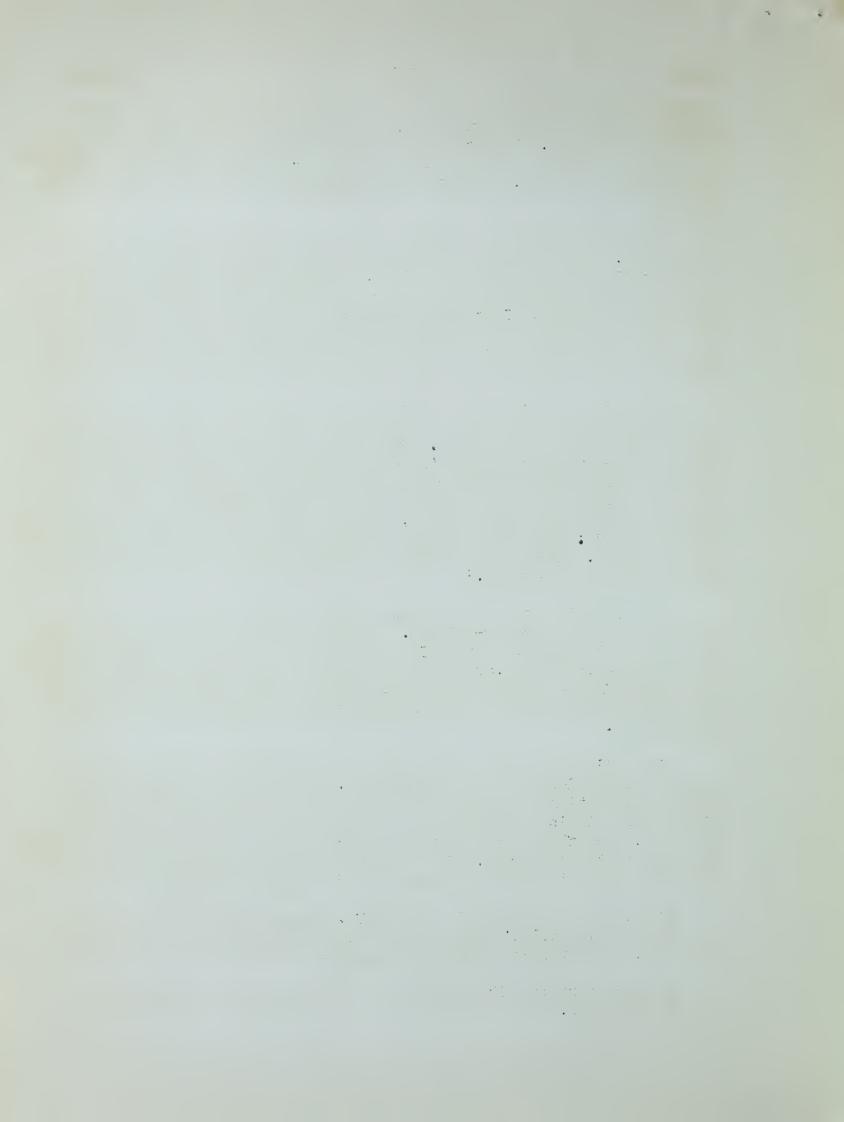
I remember in this connection that my friend A. R. Lee, Department of poultry husbandman, once gave me some good advice along this line. Perhaps I've already told you about it. But, anyway, Mr. Lee said this: "Remember that eggs deteriorate quickly in hot weather. Gather them twice a day, at least, and then keep them in cool, well-ventilated places. Remember, also, that eggs need to be lept where the air is moderately dry as well as cool. Market them at least twice a week, and even three times, because holding them lowers quality: And then, be sure to protect eggs from sun and rain on the way to market. Remember that heat and dampness are the two biggest factors which cause eggs to spoil."

Now, I realize that this article, which Mr. Lee gave to me, isn't exactly news to you poultry-raisers. And it's sure that we weren't troubled very much with dampness during July and August. Probably the big reason for so many low-grade eggs was that many producers did not make allowance for the EXCESSIVE heat which we had during those months. Practices ordinarily sufficient to keep eggs in good condition during summer, were not enough. THIS summer.

Now let's look at the other side of the question. The hot weather caused a sharp decline in egg production. At the time I talked with Mr. Bennett production was running at a level 25 per cent below a year ago. Furthermore, it is the current laying flocks that were affected. And, as you know, once flocks fall down in production it is a hard fight to get them clear up to the top again. So it is very likely that production will not reach the level it would have reached under normal conditions.

Well, how about prices? I asked Mr. Bennett. After this sharp drop in production, shouldn't prices rise? I was thinking that in this way, at least, the hot weather had been helpful.

Before he replied Mr. Bennet drew my attention to the reports of storage holdings.



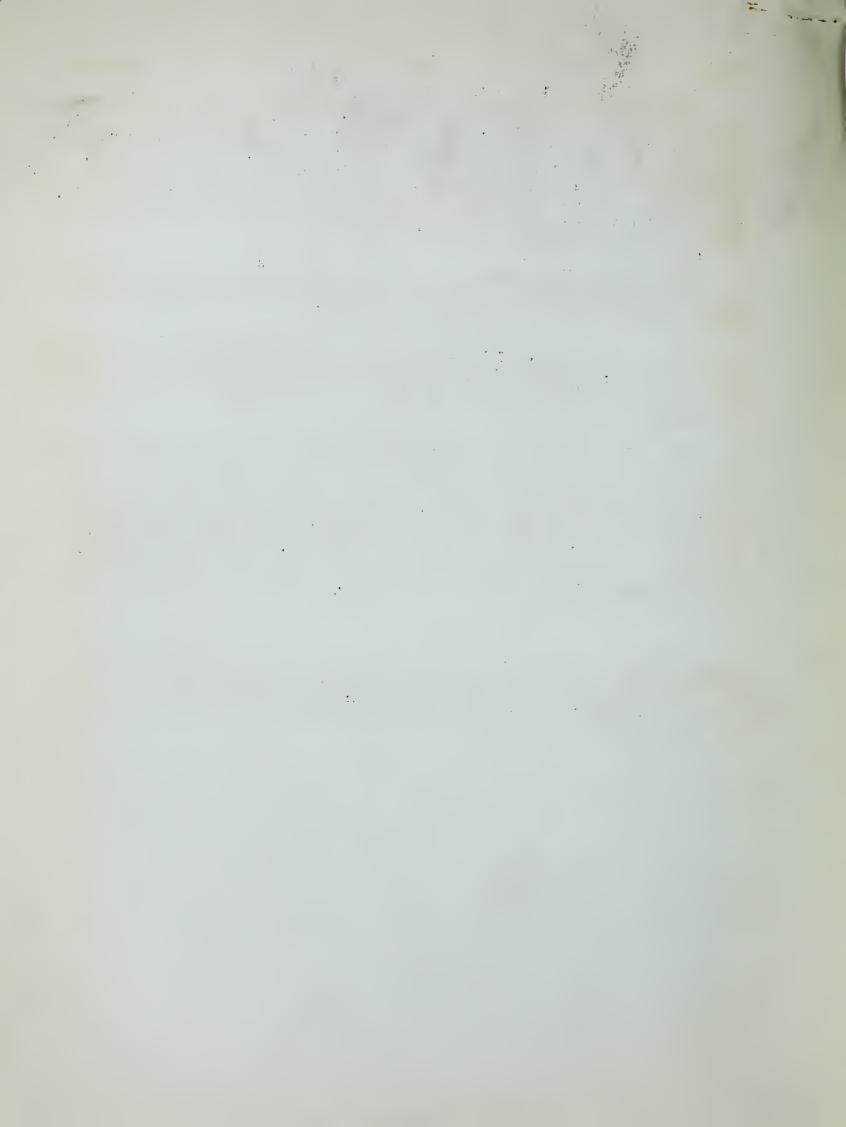
"Unquestionably," he said, "the lowered production will contribute to stabilization of the market in the long run. But---remember that we still have lots of eggs in storage. On August 1 we had about 3 million cases more (counting both shell and frozen eggs) than we had on August 1 last year. This surplus stock would amount to 7500 carboads, and that is enough to supply us for quite a while, even if production should drop much lower than it is. We'll have to use up these large storage stocks before we can reasonably hope for any great improvement in prices.

"However, you can say this about the situation," he went on. "Prices will undoubtedly be better than they would have been if the high rate of production had continued throughout the summer.

"As it is, we are not looking for any marked upward swing in the general price level.immediately. We'll doubtless have the rise which always comes in the fall months. But as things look now, it will probably be no more than the normal seasonal rise."

As to the poultry markets, Mr. Bennet reports them as comparatively quiet The hot weather also cut down shipments of poultry to market and the surplus problem is not so difficult as in the case of eggs. The main reason for this is that consumption of poultry meat was much greater than usual this year, due undoubtedly to low prices. Dealers, on the whole lost money on poultry. Poultry went into storage last year at relatively high prices, and much of it was sold at a price lower than cost. They have succeeded, however, in disposing of much of the surplus, which will undoubtedly react to the benefit of the market in the long run.

ANNOUNCE CIT: Your Farm Reporter at Washington has just discussed with you the fall market situation for poultry and eggs. If you'd like to get further information, write to the Bureau of Agricultural Economics, Department of Agriculture, in Washington, D. C.



#### POSSIBILITIES OF COOPERATIVE MARKETING:

# No. 16: Summary of the Federal Farm Board's Cooperative Marketing Program

ANNOUNCEMENT: Now we come to the sixteenth and last of our series on the possibilities of cooperative marketing. This series has been presented by Station ---- in cooperation with the Federal Farm Board and the United States Department of Agriculture. It forms part of our regular service from your farm reporter at Washington ---- Well, Mr. Reporter? -----

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I asked Mr. A. W. McKay, chief of the cooperative marketing division of the Federal Farm Board, to sum up for us the co-op program of the Farm Board.

As you recall, in talking over the possibilities of cooperation, we have had cited to us a number of examples of what farmers have done in the way of organization. We have heard what cotton, and tobacco, and grain, and dairy farmers, and fruit and vegetable producers, and livestock and wool growers have already accomplished.

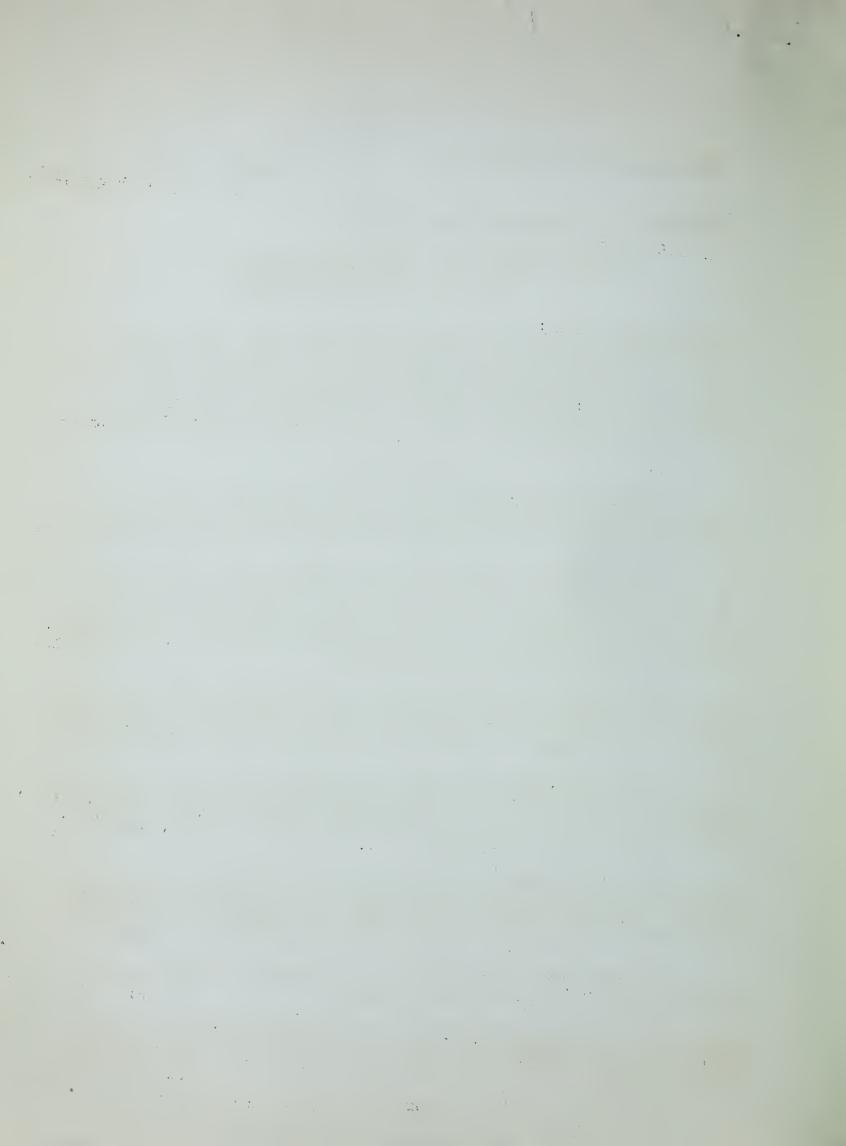
The development has varied with the different farm products. In most cases, however, we have struggled forward toward more complete organization. First, the little locals. Then the larger regional associations. Now the big nationals.

In the tremendous development of the past year in some lines, we have glimpsed the helping hand of the Federal Farm Board. Mr. McKay, however, makes clear the entire cooperative marketing program of Board, which we have heretofore had in fragments.

In the first place, he points out, that the law which created the Federal Farm Board laid down the foundation for the Board's co-op program. That act instructed the Board to encourage the organization of producers into effective associations or corporations under their own control.

Get that. The organizations are to be farmers! organizations; owned by farmers, and controlled by farmers.

The job of the Farm Board is to "encourage" the farmers to get together in a way to market their stuff most effectively. That evidently isn't taken by the Board to mean just standing on the side-lines and cheering for cooperation.



The Farm Board starts its cooperative marketing program by cooperating with the farmers. Its men actually get out and work with the farmers' association leaders in helping devise plans and set up farmer-owned and farmer-controlled co-ops based on sound knowledge and successful experience.

We have a few cooperative associations now active in this country, that are more than sixty years old, Mr. McKay tells me. We have several thousand that have been in business for fifteen or twenty years. There have been trials and errors. There have also been successes and substantial growth. Much has been learned about how failures can be avoided and success made more certain.

One of the first things the Federal Farm Board did was to take over the body of experts, of whom Mr. McKay is chief. Those men had been making a special study of farmers' co-ops for years, in the United States Department of Agriculture. Other market specialists with long experience in the workings and needs of farmers' associations were added. The services of these experts was made available to farmers' associations in devising a more efficient market set-up.

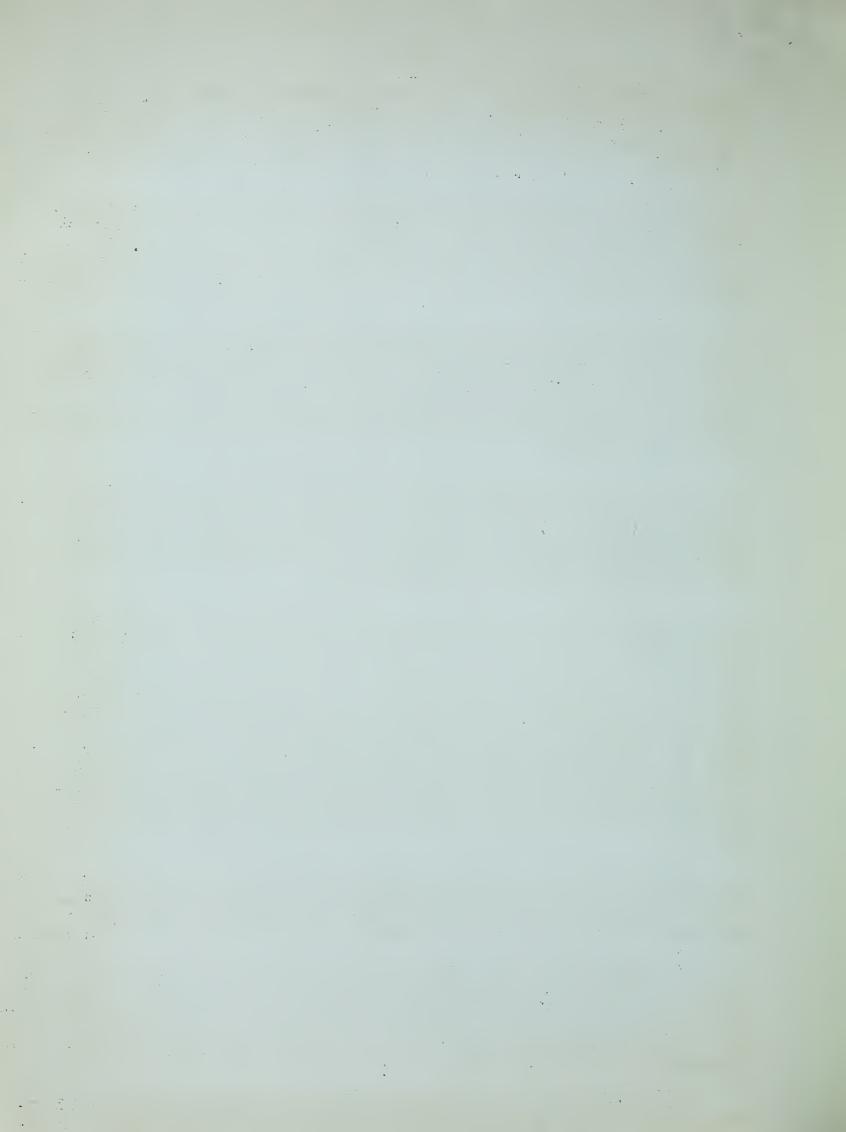
One of the most glaring faults of cooperation in this country was that many farmers' associations were competing with other farmers' associations in the market. In its program, the Federal Farm Board has lent its assistance to the formation of regional and national associations, so that all the co-ops handling the same kind of stuff, would all be tied up together for more efficient selling as one organization.

With its help, in a little over a year, seven big nation-wide associations of farmer-owned and farmer-controlled cooperatives have been set up. Country elevator associations and terminal commission co-ops and statewide wheat marketing organizations got together through their representatives and formed the National Grain Corporation. Local and regional wool growers located in the principal producing areas of the United States, including the fleece wool states of the East as well as the big range wool growers of the twest, were encouraged to set up the National Wool Marketing Corporation. State and regional cotton marketing associations formed a central American Cotton Cooperative Association. Various livestock sales agencies located on terminal markets throughout the United States and regional and state marketing associations joined hands to form the National Livestock Marketing Association.

Bean growers, pecan growers, and sugar beet growers through their cooperatives have also entered this "cooperation of cooperatives" scheme of things, by setting up the National Bean Marketing Association, National Pecan Marketing Association, and the National Sugar Beet Growers' Association.

You know the old saying, "Well begun is half done." The Farm Board experts have helped the growers representatives take great care that these organizations be on a sound business basis. The frame-work has been set-up around which growers of these different commodities can build themselves into a stronger market position. These big national organizations are all farmer-owned and farmer-controlled.

Other similar national cooperatives formed by regional and local cooperatives in other farm commodities are expected to be formed later.



This is a comprehensive long-time program to completely organize the farming industry in this country.

But, as Mr. McKay explains, the Federal Farm Board hasn't confined itself to helping set up cooperatives. True to start a new thing or start something as new to most farmers as the modern marketing end of our own business, we need the encouragement of the help of those who do know. There is another kind of encouragement we need. The courage which comes from having ready money handy, from being able to meet our obligations.

Congress through the agricultural marketing act, has authorized the Federal Farm Board to make loans to cooperative marketing associations. The Board has done that, and is doing it. Cooperatives handling apples, and beans, and citrus fruits, and cotton, and dairy products, and figs, and grain, and grass seed, and honey, and livestock, poultry and eggs, grapes and raisins, rice, sour cherries, tobacco, wheat, and wool and mohair have received financial assistance from the Board.

Most of those loans have been made to enable the associations to make bigger advances to their members than is practical under ordinary credit conditions. Loans have also been made to enable co-ops to acquire plants and other physical facilities they needed to do their job right, and render more effective service to their members.

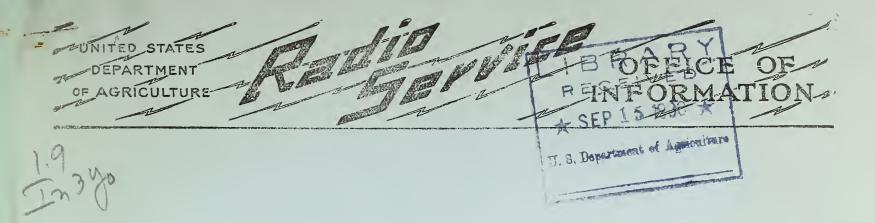
An increasingly important part of the program of the Federal Farm Board, to get to co-op members a knowledge of the best production and marketing practices, so they can better fit their supply to the market demand.

The Federal Farm Board, Mr. McKay says, regards its task as primarily one of helping farmers build the most efficient marketing machinery that can be devised.

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ANNOUNCEMENT: You have just heard a summary of the cooperative marketing program of the Federal Farm Board, as outlined to your farm reporter at Washington, by Mr. A. W. McKay, chief of the Board's cooperative marketing division. With this summary we conclude a sixteen weeks series of the possibilities of cooperative marketing.





YOUR FARM REPORTER AT WASHINGTON

Friday, September 19, 1930.

## NOT FOR PUBLICATION

Speaking Time: 10 Minutes.

Dairy Interview No. 53: TAKING A FALL FEED INVENTORY

ANNOUNCEMENT: Friday is dairy day for Your Farm Reporter at Washington. At this time he's going to continue the discussion he started last week regarding dairy feed for the coming winter. He's going to talk about taking a fall feed inventory. All right, Mr. Reporter, what else have you learned about the winter's feed supply?

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As Your Announcer hinted, this is a continuation of my interview with Mr. T. E. Woodward, who is in charge of feeding experiments with dairy cows at Uncle Sam's big farm near Washington, D. C.

Last week Mr. Woodward talked about cheap roughage feeds, and their special importance this year. He emphasized the necessity of saving these feeds, such as straw and cornstalks, which are often allowed to go to waste in the fields.

"The drouth," he declared, "has created an emergency situation.

And this situation demands the saving and utilization of all available crops and stocks of feed, no matter how low in feeding value such material may be."

Now the question is: How much feed are you going to need this winter? And how much have you?

Mr. Woodward suggests that now is a good time to take an inventory. Estimate the requirements of the herd for the winter and check up to make sure that you can meet these requirements. This inventory makes it possible to lay definite plans for feeding the materials you have on hand, and to know approximately the kinds and quantities of feed you'll have to buy.

The question of cheap feeds is everpresent. We start out with it. First of all, Mr. Woodward suggests, clean up the bases of straw stacks. "Top out the stacks to shed rain. If cattle have access to the stack, fence it so as to avoid unnecessary waste through tramping. Store corn fodder and corn stover under cover, or in stacks, as soon as it is dry enough to keep.

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Now, taking roughages in general, how much will dairy cows eat during the winter season? Well, let's assume a six months feeding season. Assume that cows are allowed about all they will eat. Remember that small cows eat less than large cows. Each cow will consume approximately the following quantities, according to Mr. Woodward:

Good timothy, mixed clover and timothy, alfalfa or soybean hay, 3200 to 4600 pounds. Jerseys, for instance, will eat around 3200 pounds, and Holsteins around 4600 pounds. Or, if this is fed with from 5400 to 7200 pounds of silage, the cow will eat from 2200 to 2900 pounds of hay. The lower figure in each case is for small cows, the larger figure for larger cows. If silage is fed as the sole roughage, it will be eaten in amounts ranging from 4 to 6 tons.

Now, Mr. Woodward says, one-half the hay may be replaced by straw; more than on-half may be replaced by corn stover. In feeding stover, he points out, make allowance for the fact that one-third to one-half of the amount fed is usually not eaten, or is otherwise wasted. He suggests that it would seem that shredding corn stover this year will be a paying practice. Shredding induces more complete consumption and makes waste material more valuable for bedding purposes.

"Now, I asked, suppose that you have both good roughage, such as well-cured hay or silage, and poorer roughage, such as corn stover or straws. How would you advise feeding them?"

"I'd say that, so far as the cow is concerned, it is better to feed the good and poor roughages along together," Mr. Woodward replied. "Straws, in particular, are unsatisfactory as a sole roughage ration. They are relatively unpalatable, high in fiber, and low in calcium and phosphorus, proteins, and vitamins. Cows do, however, relish a small amount of straw. No matter how well a cow is fed she will always eat some straw.

"As to corn stover——if it cannot be well protected from the weather, feed it as soon as possible without undue waste. If it is well protected from leaching——and if the room it occupies is not needed——there is no reason why it should not be strung out for the entire winter.

"Of course the better the roughage the more palatable it is and the more cows will eat," he went on. "And the more roughage eaten the less grain will be required. Thus, good roughage cuts the necessary grain allowance. Cows yielding an average of one pound butterfat a day will require for a winter period of six months about 1100 pounds of grain, if fed with good roughage. This applies to Jerseys, Holsteins, and other breeds. But when poorer roughage is fed the grain requirement is higher. It may even be double the grain needed with good roughage."

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Now, when you take your inventory, you may find that you don't have enough roughage to give your cows all they'll eat all winter long. And of course, this isn't absolutely necessary. Cows will keep in good health upon as little as one-half the quantities of roughage that Mr. Woodward has specified. However, he says, this is the point to bear in mind: Remember, that any deficiency in roughage must be made up in grain. In deciding whether to use the grain on hand, or to buy hay, or to buy grain, here are figures that may be useful. In nutritive value, says Mr. Woodward, I pound of good hay is worth approximately as much as six-tenths of a pound of grain, or 3 pounds of silage.

For a six-months' period, heifers 1 to 2 years old will need 500 to 800 pounds of hay---depending on their size and age--- the same amount of grain, and 2200 to 3600 pounds of silage.

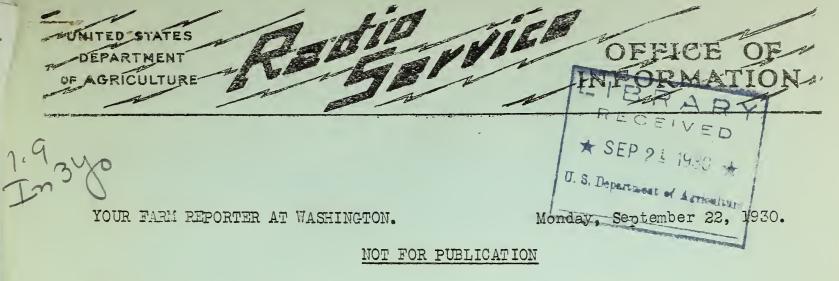
Now if you'd like to get more general information on feeding, let me refer you to a new Farmers' Bulletin, No. 1626-F, called "Feeding Dairy Cows." Mr. Woodward is one of the authors of this bulletin. It contains the latest information that the Department of Agriculture has developed on dairy feeding.

I thought, as a sort of sidelight to this report, that you might be interested in the way they feed at the government experiment farm, under normal winter conditions. Each cow gets 3 pounds of silage for each 100 pounds of her weight, every day. Twice a day she gets all the good legume hay she will eat. The grain feeding depends on the breed. For instance, the Jersey cow which produces 10 pounds or less of milk a day gets no grain at all. But for every pound over 10 she gets six-tenths of a pound of grain. Holsteins are fed no grain unless they produce over 16 pounds of milk, and for every pound over 16 the Holstein cow gets four-tenths of a pound of grain. And so on.

This, I say, is the way they feed under normal conditions. When you don't have the good legume hay, or the grain, or the silage, of course you have to make up for it. And the best way to make up for shortage in any of these feeds this year is to utilize the cheap roughages. That is why Mr. Woodward suggests making an inventory NOW of your winter feed supply.

ANNOUNCEMENT: Your Farm Reporter has just brought you a report on "Taking a Fall Feed Inventory." If you'd like to see a copy of that bulletin, write either to Station or to the U.S. Department of Agriculture in Washington. The title is "Feeding Dairy Cows," and the number is Farmers' Bulletin No. 1626-F.





Speaking Time: 10 Minutes.

All Regions.

### LAYING OUT LIVESTOCK BARNS AND BUILDINGS.

OPENING ANNOUNCEMENT: At this time Station takes pleasure in presenting Your Washington Farm Reporter who is going to talk on the subject—LAYING OUT LIVESTOCK BARNS AND SHELTERS. All right, Mr. Reporter, let's go.

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Folks, at this time last week I talked to you about providing livestock with some kind of shelter. I told you what livestock specialists in
the Federal Department of Agriculture had to say about livestock shelters.
The beef cattle man, the dairy specialist, the hog man, the sheep man, the
poultry man, and in fact, every specialist I talked to recommended some kind
of livestock shelter—in keeping of course, with the section of country, the
season, and the value of the animals to be housed or protected.

Since the Department of Agriculture recommends some kind of shelter or weather protection for most livestock, I thought you people might be interested in what Uncle San's building engineers have to say on the laying out, and even the building of these various livestock barns, buildings and shelters.

In order to get the latest information on this subject of laying out livestock barns and buildings I went down on Pennsylvania Avenue and had a talk with Mr. M. C. Betts, senior architect in the agricultural engineering division of the United States Bureau of Public Roads. Mr. Betts occupies a temporary office in an old shackly building right close to Uncle Sam's treasury building, and even though he is not in a fine building himself——he knows how to construct farm buildings that will stand up and last and even add to the appearance of the farm layout.

"Let's start our program this way," said Mr. Betts, as he swung his chair around to where he could get a view of some pictures of barns, sheds and other general farm buildings hanging on the walls of his office.

"If a farmer has to build livestock shelters immediately—right now—to protect his animals, then he may not be able to construct just exactly what he would have constructed if he had been given more time. Therefore, in the planning of livestock buildings, let's look ahead, plan, and try to build what we want and need without having to rush."

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I halted the speaker at this point and asked, "When is the best time to plan the lay out of livestock buildings?"

"Well, that depends on several things," he answered. "However, generally speaking, it is during the winter months that the farmer has more time to devote to a study of his requirements and to gather information relating to the design and construction of farm buildings. It is foolish to start building without knowing just what you are going to do and how to do it. The early fall, after crops are in, is a good time to start construction. It gives one time to at least get his building under roof and then, if the job is a long one, he can work under shelter during the winter months.

That's point number one in planning and laying out your livestock shelters.

The location of the building or buildings must be determined before the details of arrangement and construction can be settled. Of course a shelter of any kind should be placed on ground which has good natural drainage. Any farmer who has lived on his land should know its characteristics in this respect. If it be newly bought land he should be able to judge from the lay of the land the best location for his buildings. If he has any doubts someone in the neighborhood can advise him.

Place the shelters on dry ground, where good natural drainage will keep the yards fairly clean and as dry as possible, and locate the building as conveniently as possible to other buildings, roads, fields, "chores" and etc., and don't forget windbreaks and fire hazards when planning and laying out farm buildings. A livestock building ought to be located so that prevailing winds will not carry odors and flies towards the dwelling, and so that the water supply will be clean and safe. In the colder climates preference should be given to a southern slope with gravelly or sandy soil.

"Ventilation," said Mr. Betts, "is of great importance, particularly in dairy and sheep barns, hog houses, and poultry houses. The health of the animals affect production, and health is dependent largely on an ample supply of fresh air, together with the animal's comfort."

I wouldn't want to say that ventilation is point number one, two or even three in the laying out of livestock buildings, but it certainly is an important item to consider in the planning of livestock shelters. Such diseases as tuberculosis in cattle often develops as a result of poor ventilation - at least poor ventilation is conducive to the spread of disease. Therefore, give heed to ventilation when planning livestock shelters.

Light, especially sunlight is another big point to consider in the planning of livestock buildings. Millions of livestock disease germs lurk in damp, dark stables, sheds, barns, and other forms of livestock shelters. Drain the dampness away from such places, drive out the darkness with sunlight, replace the musty odor with plenty of good, fresh air, and your livestock will be healthier, and perhaps more profitable. Remember that sunlight is nature's great cleanser, and all livestock buildings ought to have every ray of sunlight that it's possible to pull in. You need sunshine and ventilation in a sheep shed, dairy barn, hog house, or even your own dwelling. Do you have sunshine and ventilation in the livestock buildings you have now? If not, plan them for the next buildings.

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Plenty of sunlight in the livestock buildings is desirable from the standpoint of animal health and also that you may see how to get around in these buildings. I know a man in the central part of this country who stepped through a hole in the hay loft floor of his barn and broke several ribs. Why? Because his barn was so dark inside that he couldn't see how to get around well in it even in the middle of the day. Avoid such things in your barn by providing plenty of light.

Mr. Betts says that livestock buildings ought to be strong and safe. That's a good suggestion. Therefore, use good, sound material, and build and brace it for strength and endurance. The foundation is very important so give this part of the building special attention whether you are building a sheep shed, a beef cattle shed, a hog house, poultry house, dairy barn, or a pretentious race horse barn, and be sure to put on a good roof.

Rats are often troublesome around barns and livestock buildings. Where it's possible, try to rat-proof livestock buildings.

Remember to plan and build in as many conveniences as possible around the livestock buildings. They save steps.

Now then, my time is about up and I haven't told you one third of the many good things Mr. Betts told me about constructing livestock shelters. However, I am going to give you the list of several Department of Agriculture publications on building livestock barns and shelters. Take the name and number of those you want, and if you desire additional information consult your own State college of agriculture or write to the United States Department of Agriculture in Washington, D. C. Now for the list.

In addition to the above publications you can also get information from the Federal Department of Agriculture on concrete, water supplies, sewage disposal, plumbing, plastering, stone masonery, painting and stucco. Write this station for copies of the publications you want.

CLOSING ANNOUNCEMENT: You have been listening to Your Washington Farm Reporter broadcast a program from Station in cooperation with the Federal Department of Agriculture. Write this statement for copies of the publications mentioned in today's broadcast.

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YOUR FARM REPORTER AT WASHINGTON.

RELEASE Tuesday, Sept. 23, 1930

#### NOT FOR PUBLICATION

SPEAKING TIME: 10 Minutes.

Crops and Soils Interview No. 54: OUR FORAGE CROP SEED SUPPLY.

ANNOUNCEMENT: Your Farm Reporter at Washington is now ready to make his usual Tuesday report. This time he has been to see the specialist in charge of the seed laboratory of the United States Department of Agriculture. We wanted him to get us information about our forage crop seed supply, especially that part of it we import. Now we will have his report.

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I wish you all could have been with me. It certainly was interesting to find out how our forage crop seed supply is protected.

You know we depend a lot on foreign seed. With most of us seed raising is incidental. The forage itself is usually the main thing. We never raise all the seed we need. Every year, we have to import big quantities of all kinds of forage crop seed except timothy.

Some years we raise very much more than others, so we import less in some years than others. But we are always more or less dependent on other countries. Mr. Edgar Brown, in charge of the Seed Laboratory of the United States Department of Agriculture, tells me that the amount of our seed imports varies so widely that the figures for any one year don't mean much by themselves. Taking an average over a number of years, we import about six million pounds of alfalfa a year. We import about eleven million pounds of red clover.

Or putting it another way, we import about one-sixth to one-eighth of our red clover seed supply. That may not seem a large proportion, but Mr. Brown reminds us that it doesn't take a big proportion to make a big difference in the market price. So you see, our foreign sources of seed are very important.

We raise fewer kinds of forage crops than the farmers of Europe. On the whole, we've gone in for farming on a bigger scale with fewer crops and less labor. Seed production takes a fair amount of hand labor. With fewer acres, and more labor evailable, and more kinds of forage crops, it is natural that farmers in some other sections of the world would go in for seed raising more than we do.

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And since we depend on other countries for our forage crop seed to such an extent, those seed have to be dependable.

The quality of our seed imports is protected by the Federal Seed Act.

Mr. Brown, who has charge of that protection, assures me that the farmers

of this country have absolute protection. There is one hundred per cent

inspection of forage seed shipments into this country.

Every importation of seed is sampled. Every set of samples is tested. There is no possibility of a lot of seed which fails to meet the requirements of the Federal Seed Act getting into this country. Seed shipments are comparatively small, so there is no need setting up a lot of laboratories at the different ports. The samples are taken by the customs officers, and are tested in Mashington or one of four other laboratories.

The Federal Seed Act stipulates that not more than three per cent of the sample can be made up of weed seed. In case more than three per cent of weed seed get mixed in with the crop seed, the importer may be permitted to reclean the entire lot, but he has to do it under bond, and the seed can not be released for sale in this country until they have passed the test.

Besides being almost free from weed seed, the forage crop seed entering this country must be unadulterated. Mr. Brown says it used to be a common trick with certain unscrupulous seedsmen to adulterate crop seed with some sort of cheaper seed which looked like the particular forage crop seed but which were not. That kind of trickery has practically stopped. The casual which were not easily detect the adulteration. But under the one hundred buyer might not easily detect the adulteration. But under the one hundred buyer cent inspection by experts, when alfalfa seed or clover seed or other per cent inspection by experts, when alfalfa seed or clover seed or other forage crop seeds, are permitted entry into this country they must be the kind of seed the importers claim they are and they must be practically free from weed seed. Any trickery is promptly detected.

More than that the seed must be alive. That is, at least sixty-five per cent of each sample must show on an actual sprouting test in the laboratory that the seed are capable of germinating before any lot of seed from abroad can come in.

Those are the main tests which foreign-grown forage crop seed of any kir,d must meet. In the case of alfalfa seed and red clover seed, however, we have added protection. It has been found by experience that alfalfa and red clover seed grown in certain countries doesn't do well in this country, even when the seed pass the purity test and will actually grow.

In order that farmers may know whether they are getting home-grown or imported alfalfa and red clover, the law requires that imported seed shall be colored. The coloring is done at the ports under the direct supervision of colored. The coloring is done at the ports under the direct supervision of officials of the United States Department of Agriculture. Three colors are used, green, red, and violet.

Red generally means danger. For that reason, red is used to stain the alfalfa and red clover seed which come from countries from which the seed have

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been found generally unsuited to successful growing in this country. The climate and other growing conditions in some countries are so different from our conditions that their alfalfa and red clover just doesn't do well in many sections of our country. In order that we may be warned of that ten per cent of the seed are colored red. In the case of Argentine alfalfa seed, the red is an orange red.

As Mr. Brown points out, staining part of the seed red is a warning signal that gets straight through to the farmer buying the seed. Marking or tagging a bag might leave a loop-hole for the few crookedly inclined seedsmen to put something over by changing the bag or the mark, but when the seed itself is tagged with a distinctive color, there is little chance for deception. If you buy alfalfa or red clover seed with a good scattering of red-colored seed all through the lot, you are using seed which have been tried and found generally unsuited to growth in this country.

Even if the seed are from a country which produces seed which are generally adaptable here, we may prefer home-grown seed. In order that we may know imported seed are imported, all imported alfalfa and red clover seed not carrying the red danger signal, are stained one per cent green. That is, all imported alfalfa and red clover except that which comes from Canada. Canadian seed are colored one per cent violet.

I asked Mr. Brown if it wasn't possible for seed grown in a "red" country, getting in through some other country. But he told me that all the seed comes in under certificate, and even in case the officials of a foreign country should be fooled into giving a false certificate, our seed dectives are able to tell the country or origin by the weed seed which do get into the best seed fields. Some of those weed seed are characteristic of the particular country in which they grow.

So you see we are thoroughly protected against poor quality seed in our world-wide sources of forage-crop seed.

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ANNOUNCEMENT: You have just heard a discussion of our forage crop seed imports as brought to us by Your Farm Reporter at Washington. This report is part of a series presented five days a week by Station cooperating with the United States Department of Agriculture.

YOUR FARM REPORTER AT VASHINGTON

Wednesday, September 24, 1930

NOT FOR PUBLICATION

Speaking Time: 10 Minutes

Poultry Interview No. 54: COMFORTABLE HOMES FOR HENS IN WINTER

ANNOUNCEMENT: Your Farm Reporter at Washington, who talks to you from Station \_\_\_\_ at this time, brings with him today some interesting sidelights on keeping the poultry flock comfortable in fall and winter. He's been talking with his friend Mr. A. R. Lee, of the U. S. Department of Agriculture; and now he's going to pass on some of the things Mr. Lee told him. All right,

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The conventional way would be to start out by saying "Now is the time." I could remind you that now is the time to get your poultry houses in good condition for winter--- to make necessary repairs--- to give them a thorough cleaning and a thorough disinfecting. And so on.

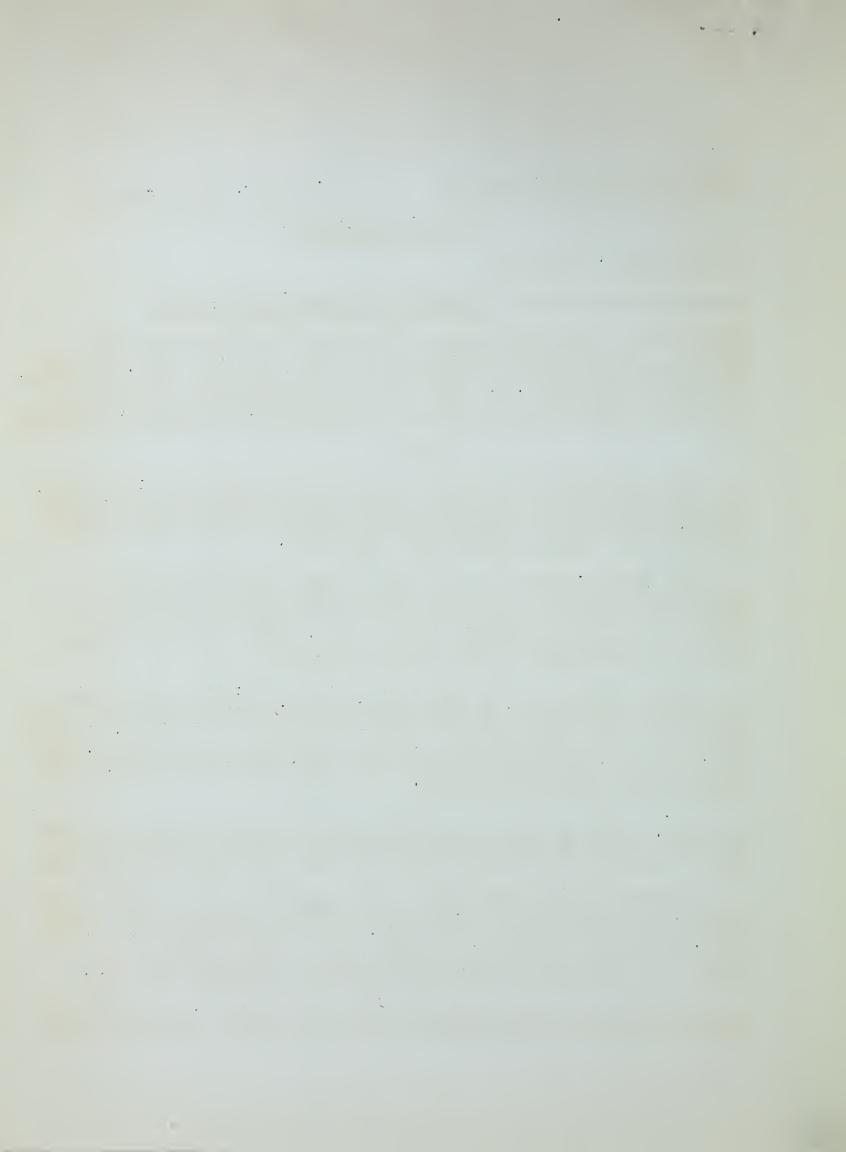
But instead, I'm going to tell you a little about how they house poultry over in England. Mr. Lee recently visited England, you know, as a delegate to the World's Poultry Congress held in London last July. And he spent as much time as possible visiting farms, getting first—hand information on poultry raising as it's done by the English.

English farmers do many things as we do them, but they also do quite a few things differently. Mr. Lee says it is very common in England to build their hens' nests on the outside of the poultry houses. The idea is that the outside nests don't take up valuable space on the inside of the house. They are, of course, built right into the house, they open to the inside, and are thus protected against the weather.

Mr. Lee told me that he was unable to see any special advantage to this practice. We get the same results in the United States by putting nests up off the floor, and the hen gets full value of all floor space just the same.

To conserve space still further, English poultry raisers sometimes build floors made of wooden slats, which take the place of dropping boards. This type of house is used for roosting only. The hens nest outside and feed outside. These houses are usually A-shaped, and are often referred to as "Arks." An 8 by 10 house of this type often houses as many as 50 hens.

I asked Mr. Lee what he thought of the slatted floors. He replied that allowing droppings to fall through to the ground is NOT a sanitary practice



-- even though the houses are occasionally moved to new locations. An improvement over this type, he said, consists of a wooden floor built under a slatted false floor, The wooden floor may be cleaned easily from the outside.

Where dropping boards ARE used, they are usually built away from the back wall. This allows a better circulation of air than when the boards are attached to the wall, as is commonly done in the United States.

The lumber used for English poultry houses is often treated with creosote, according to Mr. Lee. Lumber is expensive in England and therefore
it is very desirable to make it last as long as possible. Creosote not only
adds to the length of life of the house, but it makes the building very attractive and practically vermin proof. Lice and mites and other vermin won't
hang around creosote.

The English have also caught the American idea of skyscraper poultry houses, and Mr. Lee says that many 2, 3 and 4-story houses are being built.

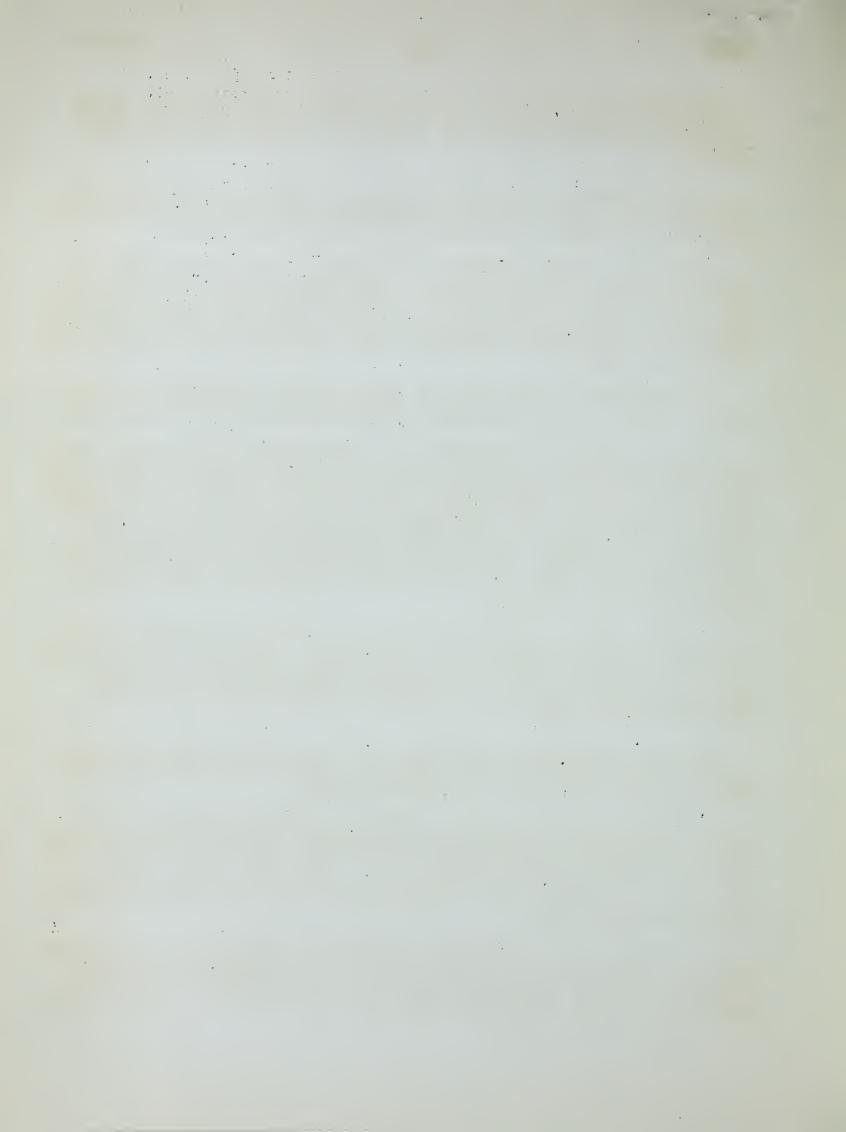
So far as light and ventilation are concerned the English people seem to be a jump ahead of us. They've given more attention to these problems, perhaps, than we have in this country. For one thing, they have adopted a type of house that has an entirely convertible front — it can be made entirely open, two-thirds open, or a third open. It can thus be adjusted to suit the weather conditions. These fronts usually consist of three tiers, one a wooden shutter, which is at the bottom; and two of glass which are above. Glass substitutes, which admit the essential ultra-violet light, are commonly used in place of glass.

At this point I asked Mr. Lee about glass substitutes in this country. He advises using them wherever it is practicable. They give chicks the benefit of the desirable part of the sunlight, which prevents leg weakness, while ordinary glass does not. Curtains of burlap and muslin also admit these ultra-violet rays.

The idea in England, ordinarily, is to keep a large number of hens in a small house. We don't do that over here. In fact, one of OUR big problems, according to Mr. Lee, is to AVOID crowding.

"Plenty of room is the first requirement in fall and winter," he declared. "Comfort and crowding never go together. I'd urge everyone to follow the old tried and true formula which is "four square feet of floor space per hen for the larger breeds, and 3½ square feet for Leghorns. And if you keep your hens in flocks of less than 35, I'd suggest at least one additional square foot per hen."

In talking about the superior ventilation and light of houses in England Mr. Lee remarked that most poultry houses on general farms in the United States have too few openings in front for winter conditions. They are often inclined to be dark and poorly ventilated.



"The poultry house MUST be dry, for good results," he said. "And to keep poultry houses dry you have to do three things: Build the house weather tight; arrange openings so that rain can't get in; and see that you have good ventilation. This helps to carry off the excess moisture and foul air.

Now about dropping boards again. There are still a few poultry raisers who don't use dropping boards," Mr. Lee remarked, "but I'd really list them as one of the necessities. They make the house so much easier to keep clean that they're practically essential to sanitation.

"Build roosts next to the rear wall, where they're out of the way. And if possible, build all roosts at the same level. If roosts are arranged like a ladder, you'll find that hens tend to crowd together on the highest roosts.

"Nests, of course, ought to be above the floor -- and on the side walls rather than under the dropping boards, ordinarily."

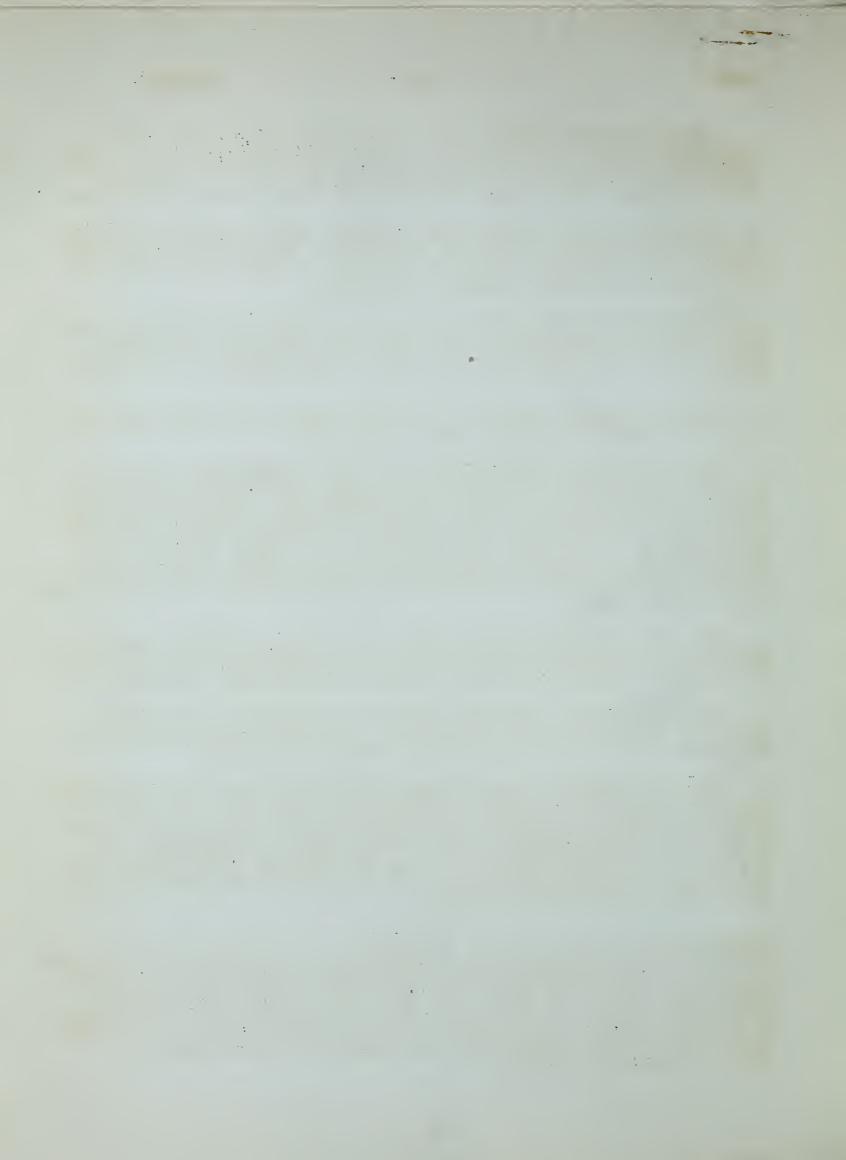
"How large should poultry houses be? Well, remember that a long narrow house is inclined to be colder than a deeper one. Then remember, also, that the depth mustn't be so great that sunlight coming through the openings can't reach practically the whole interior. Generally speaking, good houses are from 15 to 24 feet deep. And a good unit for a laying flock is between 150 to 225 hens. Long houses, by the way, need partitions at least every 40 feet, to prevent drafts. And roosts and dropping boards need partitions at least every 20 feet.

Now, since I started out by telling you about the conditions hundreds of miles away from home, over in England, let me wind up by coming right down to the present moment, in the United States -- and say "Now is the time."

Because -- Mr. Lee emphasized this more than anything else -- right now IS the time to clean up, and disinfect, and repair, and, generally, to get poultry houses in the best possible condition for winter.

If you're looking for detailed plans for poultry houses, you can usually get them from your State College of Agriculture. And if you want more detailed information on any of the points I've mentioned today, you'll find it in Farmers' Bulletin No. 1554, called "Poultry Houses and Fixtures." And if you have any special questions to ask, fire them in. I'll be glad to get them answered by Department of Agriculture specialists. Meanwhile, I'll have to be saying good-day, and thank you.

ANNOUNCEMENT: Your Farm Reporter at Washington has just reported his interview with Mr. A. R. Lee, Department of Agriculture poultry husbandman, on keeping hens comfortable in fall and winter. If you want a copy of that bulletin simply write either to Station or to the U. S. Department of Agriculture in Washington, D. C., and it will be sent to you free, as long as the supply lasts. The title is "Poultry Houses and Fixtures," and the number is Farmers' Bulletin No. 1554-F.



YOUR FARM REPORTER AT WASHINGTON

Thursday, September 25, 1930.

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Cooperative Interview No. 54: Wide-Scale Market Program Started by Fruit and Vegetable Co-ops.

ANNOUNCEMENT: We asked your Farm Reporter at Washington to drop around to the Federal Farm Board and find out what's new in cooperation. The recent action of some Florida co-ops he thinks may be of considerable interest to all of us interested in farmers' associations. That action is especially significant to growers of fruits and vegetables. Well, Mr. Reporter ----

Cooperation seems to be bearing fruit, in the winter fruit and vegetable belt.

Mr. Gardner -- Mr. K. B. Gardner, of the co-op division of the Federal Farm Board -- has been telling me about the plans of the truck growers! associations of Florida for getting together.

The significant thing about that is that it is the first effort looking toward anything approaching a wide-scale cooperative marketing program for vegetable and small gruit growers, in this country. Growers of celery, and potatoes, and tomatoes, and peppers, and watermelons, and a number of other commodities in Florida are planning to present a solid front in marketing their stuff.

The Federal Farm Board is encouraging them to take that forward step. The new sales agency may develop as a regional sales agency for Florida vegetable and fruit co-ops.

As you recall, the act which established the Federal Farm Board, in its very first section, declared it to be the policy of Congress to promote the effective merchandising of agricultural commodities, among other ways, "by encouraging the organization of producers into effective associations, or corporations, under their own control, for greater unity of effort in marketing."

According to Mr. Gardner, there is big need for "greater unity of effort in marketing" vegetables. For example, in Florida there are some fifty farmers cooperative associations selling truck commodities many of which move through the same trade channels to the same customers at terminal markets. Each of those organizations has its own separate sales agency. Each sells with little knowledge or regard for/other associations may be doing.

The plan is to get as many as possible of those fifty united to unify the sale of their stuff, through one organization which will embrace the entire

Florida vegetable growing region. In that way, growers will not only increase their bargaining power, but cut out much wasteful duplication of selling forces.

Similar need for truck growers to unite exists in other big vegetable regions of the country. For that reason, farmers all over the United States may well watch developments in Florida.

The Farm Board's program of encouragement has begun to bring results in Florida first, it seems, because conditions there are extra good for bringing the organizations into a unified program. In the first place, twenty-five per cent of the movement of vegetables from Florida is already handled by farmers' co-ops. Then, too, Florida ships at a time when relatively few other regions are shipping. For that reason, the possibilities of exercising judgement in the marketing, the distribution and movement of the crops are very great.

Anyway, the four larger associations in Florida, have agreed to meet and set up a central organization for vegetables and fruits other than citrus. These four associations handle at least half of the truck handled by Florida cooperatives. One of those associations deals in potatoes only. A second one merkets tomatoes. A third sells celery and a small proportion of other truck crops. A fourth handles a line of various vegetables in which celery and tomatoes predominate.

Some folks, on first thought, might be inclined to shy at that idea of marketing more than one commodity through the same sales agency. Yet there is good reason for it. As Mr. Gardner points out, the different kinds of truck crops are not only sold to the same members of the trade, but in many instances, a single truck farmer grows more than one kind of crop.

That being the case, unless the organization handles a variety of commodities, it is necessary for the farmer to join more than one association. Either that, or he will have to market one kind of crop through the association, and another crop on the outside. That situation is unfavorable to cooperation.

On the other hand, the principal of handling a variety of commodities so long as they move through the same channels of trade or to the same customers is well established, and has been long accepted.

For example, Mr. Gardner cites the case of the canneries. As a rule, our canneries don't confine themselves to handling just one product. They find it to their advantage to sell a variety of products. The members of the trade generally want as complete a line as possible for the cannery to handle economically. In recent years, certain California canning concerns have gone so far as to add Florida grape-fruit to make their line of canned goods more complete.

But it is not necessary to go outside of the fresh vegetable business to find examples of the successful application of this well-established principle.

In the actual selling of vegetables by private individuals and organizations, we all know it has long been a common practice, for the same individual to sell a number of different truck crops in the same market or to the same dealer.

Furthermore, Mr. Gardner points out, that in Florida itself there are successful cooperatives handling a large number of truck crops. The plan of cooperation of cooperatives handling different crops which move through the same trade channels to the same customers is therefore well grounded in the experience of individual growers and local organizations.

As Mr. Gardner sees it, the present getting together of these Florida associations is a highly encouraging development looking toward a Florida regional association which will enable Florida growers to present a united front in marketing their various truck crops. He says it will also be necessary to provide a sales service for the smaller associations by means of a centralized organization.

Vegetable associations, as a rule, perform more services for their members and the management and the growers are in closer touch than is the case with organizations handling many other kinds of farm products.

This, Mr. Gardner thinks, is largely responsible for the strong feeling among members for their individual local association as opposed to other associations. He holds that it is highly significant that truck farmers' associations have begun to lay aside petty rivalries and cooperate to their mutual advantage in a wide-scale market program.

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CLOSING ANNOUNCEMENT: You have just heard from a specialist of the Federal Farm Board how farmers in Florida are getting together for the sale of truck crops. This time next week, you can watch for another report on what farmers are doing toward getting together under the encouragement of the Federal Farm Board.

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YOUR FARM REPORTER AT WASHINGTON.

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Friday, Sentember 26, 1930.

NOT FOR PUBLICATION.

SPEAKING TIME: 10 Minutes.

Dairy Interview No. 54: HOW A MILK PRODUCTS PLANT UTILIZES SKIM-MILK.

ANNOUNCEMENT: Your Farm Reporter at Washington strays a bit from the field of dairy-FARMING this week, and he gives us another peek into a dairy manufacturing plant. He's going to tell us the story of skim-milk -- what happens to the milk that you sell to milk plants after the butterfat is removed. All right, Mr. Reporter.

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After you've sold your whole milk to a milk-products plant, what becomes of it?

Butterfat

After the butterfat has been skimmed off of milk testing 4%/the plant still has on its hands about 70 per cent of the milk solids which it paid for. To put it in plainer terms, approximately 85 pounds out of every hundred remains as skim-milk.

It's easy to see why the utilization of this skim-milk is quite a problem. It may mean the difference between profit and loss on the plant's balance sheet -- and usually does.

Running a big milk-products plant -- such as a whole-milk creamery, or a condensary, or a dry-milk plant -- is getting to be more and more like running a meat-packing business, in this respect. It is said that meat-packers have utilized every by-product to be found in a hog except the squeal and the curl of the tail. And a friend tells me that now they're even putting the squeals in bottles and selling them for whistles. Be that as it may, the by-products of meat-packing are about as important as meat-packing -- perhaps more important in some cases.

In a business way, the problem of the manufacturer of milk products is essentially the same as the packer's. His problem is to dispose of his surplus milk in the most profitable way. Now, in the case of the big creamery buying whole milk, the surplus would be skim-milk. The creameryman might make it into cottage cheese. He might condense it, or dry it into powdered form, or he might transform it into casein. These are the four main products of a milk plant.

Well, someone says, "That's true of the big creamery. But should a condensary, say, or a dry-milk plant, have a surplus? They use this milk in manufacturing their products."

The answer comes from Mr. C. S. Trimble, one of the dairy manufacturing specialists of the U. S. Department of Agriculture.

Mr. Trimble says that the trend is -- and as a matter of fact, must be -- towards diversification. That means that the most successful milk-products plants probably must be equipped to manufacture more than one product. The modern condensary also has machinery for making dry-milk, and perhaps casein. The dry-milk plant has a vacuum pan, for condensing milk, and it has vets for cheese, and it may manufacture some butter. And so on. The point is that the more ways a plant has of disposing of the milk it buys, the more apt it is to be successful. The reason is very obvious. It's the same reason that diversification generally pays in farming. When the condensed milk markets are glutted, or otherwise weak, the manufacturer can divert more of his milk to making casein, or cottage cheese, or powdered milk. And so on around the circle. With two, or three, or four products to pick from, he should have at least one all the time that is profitable.

Now, of course, we're not talking about the small plants. The small plant ordinarily skims the farmer's milk and sells the skim-milk back to him. It takes volume to make it practical to have this expensive equipment which we have been talking about.

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What Mr. Trimble told me applies mainly to/big plants -- an ice-cream plant, or a condensary, or a big creamery. Mr. Trimble said that in the dairy sections of the Northwest, quite a few creameries are now buying whole milk -- and utilizing the skim-milk for other products.

There's another reason, of course, why it often pays certain types of big milk-products plants to have more than one basket to put their eggs in. During the flush season, they always get a surplus supply of milk. If the plant is equipped to condense this milk, or dry it, why it can store it away and hold it until ready for marketing. The manager doesn't have to worry about disposing of it all at once, as he would have to do if he manufactured only ice-cream, or cottage cheese, or other perishable products.

These are economic problems of the dairy-products manufacturer and are of great direct importance to him. They are also of great importance to the dairy farmer, because the price the manufacturer can pay for milk depends upon what he can sell it for. But I think it is a matter of interest to know what becomes of your milk. For instance, did it ever occur to you, when you buy a printed magazine that you may be buying back some of your own milk? It's perfectly possible. In fact, the biggest use of casein — which is made from skim-milk — is in the paper industry. It is a binder for the clay which is used to coat paper. Seventy per cent of all casein is used for this purpose.

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Or perhaps your skim-milk might come back to you in the form of glue. The Federal government, I'm told, used 13 million pounds of casein during the world war, making glue for the airplane industry. Casein glue has the advantage of being water-proof, and it can be used cold.

I don't need to mention the many other products for which casein is used -- buttons, fountain pens, combs, cigarette holders, and so on and so forth. This is the more spectacular side of the casein industry. And it seems to be the better known side, although actually these products take only a very small percentage of the total casein manufactured.

And who knows? -- There may be plenty of romance in dry milk and condensed milk, too. The milk you unsuspectingly sell today may be used next summer by some family on a lonely island in the South Seas -- or by an explorer in the jungles of Africa. For all I know, I might buy it off the shelves of some grocery store here in Washington, D. C.

It's VERY possible, of course, that you yourself might get it back, in the form of dried buttermilk, for your poultry or livestock.

The amount of skim-milk used for <u>cottage cheese</u> and commercial buttermilk depends on the amount of these products that can be sold immediately, because they are perishable. Some plants have built up their market to such an extent that they use practically all their surplus milk for cottage cheese. But these are exceptions.

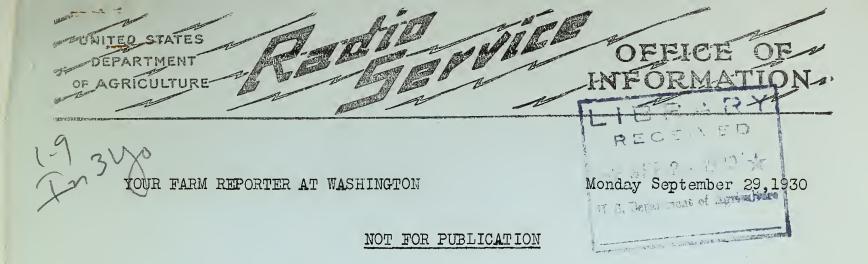
Now I see it's getting about time for me to turn the microphone back to your announcer. I'd just like to say that, so far as I know, there's no moral in what I've reported to you today. I thought that these facts Mr. Trimble gave me were interesting, and I hope you found them interesting.

Generally speaking, anything that affects the dairy manufacturing industry is also apt to affect producers. And so, the trends in the utilization of skim-milk, after all, may very well be of something more than passing interest, to the dairy farmer in the long run. At least, it's something to think about.

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CLOSING ANNOUNCEMENT: Your Farm Reporter at Washington has just brought you a few sidelights on how big milk products plants utilize skim-milk. This concludes his reports from Station for this week. He'll be back again at this same time Monday.

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Speaking Time: 10 Minutes

All Regions.

# LOOK OUT FOR THE BROOD SOW THIS FALL.

OPENING ANNOUNCEMENT: Every Monday Your Washington Farm Reporter broadcasts the results of a personal interview with some livestock specialist in the United States Bureau of Animal Industry. The subject for today is, LOOK OUT FOR THE BROOD SOW THIS FALL. Are you ready, Mr. Reporter?

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You bet your boots I am. I'm always ready to talk about livestock and livestock problems, and you know, folks, there are often REAL PROBLEMS connected with the livestock industry. I want to talk to you about one of those problems to-day.

Raising livestock is like riding on a train. You can make all the preparations you want to make before the train pulls up to the station, but when the conductor hollers "all aboard"———well, you had just better be aboard, that's all. In the raising of livestock you can make all the preparations you want to make before the young animals arrive, but when they put in their appearance———everything ought to be ready to take care of them,

You may be able to catch the train after it starts but you take a chance. You may be able to save most of the young animals without any special preparations, but again you take a chance. Remember that careful planning and preparation are important factors that ought to be considered wisely in the livestock industry.

In that connection I want to tell you about an interesting conversation that I have just had with Dr. S. S. Buckley one of the men in charge of Uncle Sam's Office of Swine Investigation. Dr. Buckley used to be connected with the University of Maryland, but he's been working for Uncle Sam for more than a dozen years, and is well acquainted with the many problems connected with the hog industry.

This being the fall season and the time of farrowing for many hog raisers, naturally the discussion drifted in that direction, and now I want you to get the first big point the doctor gave me. Here it is:

Lat the conclusion of successful mating of hogs NOTHING further can be done to influence inherited quality. In other words, after the mating it's up to the hog raiser to take care of the brood sows, and when the pigs are farrowed, take care of them in such a way as to produce the most profitable hogs for the market or for the home table.

"Dr. Buckley"—I said, "what is the most critical period in a hog's life?"

"That depends," he answered, "but to a considerable extent the critical period, the most important stage in the development of a market hog is the period during which the sow is CARRYING her young and during the SUCKLING period of the new-born pigs."

Of course, you listeners can interpret that statement just as well as I can. It simply means that hog raisers ought to take special care of brood sows while they are carrying pigs and then be ready and prepared to give the pigs proper care and attention just as soon as they are farrowed and until they are weaned or, as we commonly say, "able to root for themselves."

According to Dr. Buckley, brood sows ought to be properly fed and hourished at all times, but this is especially important while they are carrying pigs. During this period they must be completely and amply nourished with suitable feeds and water. In addition brood sows ought to have plenty of exercise and be exposed to the natural variations of sunlight, temperature, and fresh air. They must also have good, comfortable, dry, and clean quarters for rest and sleep.

The brood sow's condition, when due to farrow, must be strong and vigorous in order to bring forth successfully a litter of strong, active pigs. The brood sow must further be fortified with the ability to nurse her litter ---- from having acquired a healthy reserve of flesh and energy before the time of farrowing.

Uncle Sam's hog specialist says that the quality of a hog at the market is largely dependent upon its quality at the time of farrowing. Putting it another way, a well-fed and well-managed sow is apt to farrow a better quality of pigs than one in poor or medium condition.

The success of the business of swine production does not rest primarily on marketing, but upon the PRODUCT TO BE MARKETED, and the way the brood sow is handled and managed helps to determine the quality of pig to be farrowed, fed and marketed. Therefore it pays to take care of the brood sow, especially while she is carrying her pigs.

Dr. Buckley says, "The fate of a pig rests upon the intelligent and painstaking care exercised by the hog grower. To be well born is the first requisite" and then it's up to the hog raiser to see that the pig gets everything coming to it———and if it does, and is the right kind of a pig from a good strain of hogs——it's very apt to go "over the top" at the market.

At this point I interrupted the speaker to ask about the feed for the brood sow, especially this year when corn, and many other livestock feeds are short.

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"Ch, yes," he remarked, "that is mighty important. Well, now, among the feeds commonly used for sows during the gestation period are corn, wheat middlings, or wheat shorts, tankage or fishmeal, legume hays, and supplementary minerals, the latter principally to supply lime and phosphorus."

"That's the usual feeding material for normal years, isn't it?" I asked.

"Yes, it is," he answered, "but with the scarcity of corn this year and the probable high price----and the ABUNDANCE OF WHEAT CHEAP WHEAT--that ought to suggest a change from the usual feeding practices in many sections."

"Can you give me a ration --- including wheat?" I questioned.

"Sure," he said, "I can do that," Running through some papers on his desk he pulled forth a paper and said, "Here's one I worked out for a Corn Belt hog raiser the other day. Feeding average-weight brood sows with about one and a half to two pounds daily for each 100 pounds of live weight of hog by the following plan ought to supply satisfactory nourishment, and with all other conditions favorable, develop good strong pigs."

Now for the ration and also the method of feeding. Are you ready with that radio pencil and paper? Here we go.

"Scatter widely over the ground 3 pounds of number 2 yellow, shelled corn for EACH sow in the feed lot. Next, food in a trough a mixture of 3 pounds of ground wheat, one pound of wheat bran or shorts, and one-half pound of tankage or fishmeal————for EACH SOW."

"Want to say anything about water?" I queried.

"Yes," he said. "At some distance from the feeding trough or platform provide a constant supply of good water. Also at a convenient place
set up a feed rack for supplying alfalfa, clover or other legume hay. A
mineral mixture should be available at all times in a self-feeder."

Naturally it's getting late to make any material change in the condition of the sow that is to farrow this fall, but a few weeks will help, even though she's been half-way neglected up to this time. If you have partly neglected the sow----or have the pigs now----you can start right in to feeding and managing them in the proper manner, and that will help.

You have plenty of time to get ready for the pigs that are to be farrowed next spring so begin at once to take care of the sow that is to farrow next March or April.

Remember that complete, ample rations, good water, exercise, and comfortable, dry quarter are imperative, if best results are to be secured from the litters to be farrowed next spring.

Now folks, I may have talked too fast for you to catch all the points. You can get them all by asking for a copy of the FARM REPORTER OF SEPTEMBER 29, 1930, and you can get additional hog information by asking for a copy of

Farmers Bulletin No. 1437-F, called SWINE PRODUCTION."

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CLOSING ANNOUNCEMENT: You have been listening to Your Washington Farm Reporter ain a broadcast from Station in cooperation with the Federal Department of Agriculture. Drop us a line if you want a copy of the FARM REPORTER FOR SEPTEMBER 29,1930 or of Farmers Bulletin No.1437-F, called WSWINE PRODUCTION."

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YOUR FARM REPORTER AT WASHINGTON.

Tuesday, Sept. 30, 1930.

## NOT FOR PUBLICATION

Speaking Time: 10 Minutes.

Crops and Soils Interview No. 55: What About Your Seed Corn?

ANNOUNCEMENT: Your Farm Reporter at Washington has been to see the Department of Agriculture specialists about seed corn. That is an important question every year in every part of the country. This year the drought has made it more important than ever in some sections. The reporter brings a timely word of warning to us. Well, Mr. Reporter, what about our seed corn? ---

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There are millions of acres of corn in this country that will not produce grain enough this year for seed.

Before we start "viewing with alarm," however, I want to tell you a little about my visit to Mr. F. D. Richey, the corn breeding expert of the United States Department of Agriculture. Usually, at this time of the year, you'll find Mr. Richey working out in the corn field on Arlington Farm just across the Potomac River from Washington. I just happened to catch him in his office. He showed me a sort of map of the country he has made.

He made up that map out of ears of corn, just to show the different types and varieties of corn grown in different parts of the country. We talk about our corn crop -- there are many of them. It is surprising what a local crop corn is. As Mr. Richey pointed out, a variety which grows first-rate in one section of the country, often behaves very differently in another section where conditions are a little different. The variety must be suited to the locality.

That fact stands out like a sycamore tree in a grave-yard.

In some fields, corn never formed ears this season. In other fields the heat and drought prevented pollination; there are cobs, but no grain. In other areas, the grain is formed but it is short and chaffy. The crop reports show that practically everywhere east of Colorado corn prospects are very uneven. In general, the poorest corn is where the drought was most severe and came the earliest. In all States there are some fine fields of corn, mostly on low bottoms which are too wet most seasons. Many may be able to get seed from such fields. But it may not be well to go too far afield. We must remember that the seed should be locally adaptable.

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We have to do something. We have to do something promptly. Next spring may be too late. Corn which might be saved for seed now may have been fed by next spring.

If we can't get seed on our own farm, possibly a neighbor may have some to spare. The County Agent or State Agricultural Experiment Station may know some nearby area where corn was not hit so hard or where there may be some old corn available for seed. Don't put off getting a supply of seed until you may have to buy from a distance and get seed unsuited for growing in the locality.

Ordinarily we select big, well-filled ears for seed. Some of us are not going to be able to do that this year. We have nothing but nubbins.

However, Mr. Richey says that a four-inch nubbin with a hundred well-developed kernels of a productive, adapted variety from a drought-ruined field is likely to be better seed corn than a ten inch ear from 100 miles north or south.

That may sound shocking to some who have been in the habit of carefully selecting only those ears which are reasonably well filled at butt and tip and have fairly straight rows of kernels. In general, the idea is to use only the best for seed.

When you come to think of it, however, where the drought has cut the yield to a few bushels to the acre, and there are no big ears, the nubbins may represent the best.

To replace a productive strain well adapted to the locality with varieties from a distance, Mr. Richey warned me, may not only cause lower yield next year, but for years to come.

In general, seed corn should be selected in the field from stalks which yield best in equal competition with others. It should be of a variety which succeeds well and matures under the usual local conditions. As near as possible, save ears only from stalks free from disease. Select dropping ears which shed rain readily. -- And, by the way, you can get other good suggestions from the bulletin on "Better Seed Corn." "Better Seed Corn" is Farmers' Bulletin No. 1175-F, prepared by Department of Agriculture experts and available to anyone who writes for it.

Remember, this is a job for the here and now. Don't put off insuring yourself a supply of the best well-adapted seed corn to be had.

The same day you gather the seed, hang it in a dry, airy place. One of the best ways to cure seed corn is to hang it from the rafters of a barn or an open shed.

The vitality of seed often is reduced by leaving it in a sack or a pile for even a day after gathering. Hang the ears so the air can circulate around them and so they won't touch each other.

After hanging in the shed or lying on the rack a couple of months, the seed ears should be dry as a "bone." You can leave them where they are, or store them in mouse-proof barrels, or boxes, or crates during the winter. In any case, never expose seed corn to damp air. The ears may absorb moisture and be injured. Don't let them freeze before they are thoroughly dried out.

Some farmers put the thoroughly dried seed ears in the center of a bin and fill with loose dry wheat or oats to protect them from the rats and mice.

I notice in the "Rat Control" bulletin, that's Farmers' Bulletin No. 1533-F of the bulletins put out by the United States Department of Agriculture -- corncribs should be equipped with metal rat guards at the tops of the foundation posts or they should be entirely closed in with wire mesh to keep out the rats. That bulletin has other suggestions for fighting rats. If you don't already know all the ways to rid the place of rats, better write for that bulletin, too. You will need it to save other crops than corn. The rat is still our worst enemy in the animal world.

But in keeping the seed corn over winter you want to also protect it from insects. The bulletin on "Stored-Grain Pests" will give you a lot of interesting information about the insect pest which may damage your seed corn if you don't take care.

Let me repeat, get the best seed corn to be had from the locally adapted supply. Seed corn is going to be scarce in many sections next spring. Look to your needs before it is too late to get good seed of varieties suited to your conditions.

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ANNOUNCEMENT: Let's repeat the title and number of those bulletins. You can get them either by writing to this Station or by writing direct to the United States Department of Agriculture in Washington, D. C. "Better Seed Corn" is Farmers' Bulletin No. 1175-F. "Rat Control" is Farmers' Bulletin No. 1260-F.

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